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China Report

AGRICULTURE



FOREIGN BROADCAST INFORMATION SERVICE

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23 July 1985

CHINA REPORT

AGRICULTURE

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NATIONAL

RELAXATION OF MOUNTAIN, FOREST REGION POLICIES DETAILED

Return to Afforestation Urged

Beijing NONGMIN RIBAO in Chinese 15 Feb 85 p 1

[Article: "Slope and Mountain Lands Must Gradually Be Withdrawn From Cultivation"]

[Text] Withdrawing from tilling slope lands above 25 degrees and resuming afforestation and animal husbandry step by step in a planned way is an important measure for the people in the mountainous area to free themselves from poverty and become rich. The residents of mountainous areas previously bore a commodity burden due to the impact of the "left"; except for their own consumption, they had to sell grain to the state. They were forced to destroy woods in order to cultivate and, consequently, caused disastrous effects. As a result of implementing rural policy and mobilizing the production zeal of the vast masses of peasants since the 3d Plenum of the 11th CPC Central Committee and scoring consecutive bumper harvests of grain and cotton, favorable conditions have been created for withdrawing from cultivating steep slopes and resuming afforestation and animal husbandry. We must seize this unprecedented opportunity to bring it about.

Mountainous areas are not suitable for growing grain crops because of high altitude, thin soil layer, low temperature and short frost-free period, but it is vast in territory and abundant in resources; thus, it is advantageous to develop forest, animal husbandry, medicinal material, special local products, and mining. While engaging in "taking grain as the key link" in the past against the realistic situation and ignoring the diversified economy in forestry and animal husbandry, the superiority in the mountainous area became inferiority, and the simulation turned for the worse. Grain production did not increase and forestry, animal husbandry and mountain products declined; a vicious circle appeared of "the poorer the more reclamation, the more reclamation the poorer". Withdrawing from tilling and returning the lands to afforestation and livestock breeding are favorable to expanding the advantages of mountainous areas, to change irrational production structures and to develop a diversified economy so as to regain the benign cycle of mountainous area economy.

Reclaiming wastelands and growing grain crops on steep slopes are major reasons for accelerated water loss and soil erosion and the drop of soil fertility.

According to surveys, 6.7 to 8.7 tons of soil were lost per mu from farmlands with a 21 to 30 degree slope in the northwest loess plateau, while the soil lost per mu from farmlands with a 15 to 30 degree slope amounted to 10 to 30 tons in the southern mountain area. The soil layer is very thin in the southern mountain area and is easily washed away and turned to bare rock; therefore, the results are more severe than that of the loess plateau. Output is low and unstable due to the heavy loss of fertilizer in soil and the vulnerability in resisting natural calamities. "The upper reaches of a river open up, the lower reaches suffer." Reclamation has led to quantities of mud and sand drifting into rivers and reservoirs and raised riverbeds, shorten the mileage of navigable inland waters, and silted up reservoirs. Withdrawing from tilling these lands and resuming afforestation and animal husbandry may prevent water loss and soil erosion, fertilize the soil, reduce soil deposits in rivers and reservoirs and make the best use of water conservancy works for the benefit of the people.

Woods and grasses are the most important components in a natural ecological system and can play a role in regulating climate, conserving water and beautifying the environment. Owing to widely reclaiming wastelands for tilling and repeatedly destroying forest resources in some areas, the weather becomes abnormal, circumstances worsen and there have been frequent calamities. The catastrophic floods which occurred in Sichuan Province in 1981 and at Ankang Prefecture in Shanxi Province in 1983, in addition to atmospheric conditions were attributed to indiscriminate denudation and excessive cultivation on the upper reaches of rivers and destructive lumbering of shelter belts which protect headwaters. Withdrawing from tilling and returning the lands to afforestation and animal husbandry would help to advance the ecological balance and reduce natural calamities.

In summary, it is imperative and conditions are ripe to stop tilling steep slopes and to resume afforestation and animal husbandry. We must mobilize the masses to work this out step by step in a planned way. If the people are short of foods after withdrawing from tilling, the state should sell food to them or sell it to them on credit.

Unified Procurement Abolished

Beijing NONGMIN RIBAO in Chinese 16 Feb 85 p 1

[Article: "Enlivening the Collective Economy of Forest Regions -- A Major Reform"]

[Text] From now on, the state will call off unified lumber procurement from collective forest regions and carry out negotiated purchase and sale. This is a major reform, complying with the characteristics of collective forest regions and the requirements of the masses, which will change the lumber procurement system, activate the collective economy of forest regions and accelerate forest buildup. A collective forest region, which differs from a state-run forest, is chiefly owned by collectives and individuals, depending on its communes and brigades and the masses to develop forest production. The funds and materials are mainly raised through different channels of localities and the masses. The forest peasants do not have an "iron rice bowl," they must make

a living by selling timber. These characteristics show that the lumber production, circulation and consumption of the collective forest regions must adhere to the principle of exchange at equal value.

The masses previously could not decide how to run forestry because of the state's excessive control. A great deal of lumber not permitted to be sold was burned or rotted on the mountains. The state invested little to foster middle- and young-growth forests, imposed too many restrictions on the masses' investment, did not allow lumber from thinning out procedures to be put on the free market for sale at negotiated price, to exchange for foods and materials, or to process and use locally; consequently, forest tending by thinning out could not develop and a great quantity of wealth went to waste on the mountains. Since abolition unified procurement and implementation of negotiated purchase and sale, the masses have been able to make full use of lumber, for sale or processing, to increase income. It is favorable to mobilizing the masses' zeal to expand forest production. The previous price for unified procurement was so low that selling lumber was not as profitable as selling cogongrass. Cheap prices discouraged the masses' initiative to afforest, nurse and protect a forest. Now, forest peasants may sell timber at equal value. Now that earnings are going up, they will love the mountains, protect woods and build up forests.

The new policy is beneficial in reinforcing the power of forestry to compete with other trades. The peasants will make economic decisions chiefly from the point of economic returns if they can keep the initiative in their own hands. A competitive phase will emerge in the fields of resources, funds, labor and talent among agriculture, forestry, animal husbandry, farm sidelines and fishery. The key factor of competitive ability relies on the scope of substantial managerial benefits. Forestry is in a very unfavorable position in the competition because forest production cycles are pretty long, returns may be obtained in perhaps as long as 6 to 7 years, or more than 10 years or even over scores of years, in addition to being controlled rigidly and getting lower prices. Therefore, it is necessary to further relax restrictions and tidy up the circulation and distribution relationship, manage forestry in accordance with the law of value, let forest peasants make more money so as to vitalize forestry and accelerate the forest region economy.

In short, as the state is unable to pay great increases in price for timber, the most effective measures for activating the collective economy of forest region's are to open up the timber market, unclog the material exchange channels between mountainous areas and flatlands, and between forest regions and farm districts, allow the lumber cut by forest peasants and collective forest regions to be put on the free market, and implement negotiated purchase and sale. The lumber procurement departments may use a form of trade contract to buy sums of the lumber; however, the felling must be authorized by the government in accordance with regulations, and destructive lumbering of a forest will be strictly prohibited.

Contract System for State Forests

Beijing NONGMIN RIBAO in Chinese 18 Feb 85 p 1

[Article: Implement Contracted Joint Operations; Hasten Construction of State Forests Areas"]

[Text] The state forest region is China's major base for lumber production. Some reforms have been underway and have gained certain achievements in the state forest region; but development is rather slow compared with the rapidly progressive good conditions in farm areas. Many state forest farms are under poor management, with felling exceeding growth, low economic returns and, therefore, heavy losses. There are still many barren hills not afforested for a long time, and middle forests and young growths are badly in need of nursing and thinning out. However, due to slow developments, the effect is grave for the growth of forests. The state taking on too much work and the lack of economic vigor within the forestry enterprises are major reasons for these problems. The funds and materials to operate state forest farms are solely dependent on uncompensated governmental investment and appropriation. The farms hand over their profits to the state and replenish the losses from the state. It is the same whether they do a good or a bad job. Staffs and workers in state forest farms hold an "iron rice bowl" and eat from "a big public pot." There is no difference whether they do a good or bad job; they do not care about managerial results. If state forest farms do not seek fundamental reforms, it is impossible to thoroughly turn the tide of deficit, to make the barren hills green and to nurse and thin out the woods. The basic means to solve these problems is to follow the successful experience of households in the output-related system of contracted responsibilities in agriculture and to apply it in state forest farms by contracting with staff-worker households or jointly operating with peasants nearby in line with local conditions.

Experience proves that there are many advantages for state forest farms to contract with staff-worker households: 1. Good method. Contracting a vast area and thus speeding up afforestation may quicken the achievement of green hills. 2. Good quality. The system cures such longtime maladies as afforestation without protection, investment without profit. Combine afforestation, management and benefit, therefore heighten the staff-workers' senses of responsibility in afforestation and forest protection. 3. Low investment. The system clearly demarcates the contractors' rights and duties, links their interests with desires, makes them carefully calculate and lets them broaden income sources and reduce expenditures; consequently, they spend less but work hard and do better. 4. High returns. The contractors would pay attention to economic returns, not only collect and nurse seedlings, painstakingly run and maintain but engage in multipurpose management, practice intercropping between trees and grasses, and combine forestry and livestock breeding. The labor productivity and commodity rate will grow many times over that of the past.

Some state forest farms are vast in scope. They do not have enough funds and labor force to run the whole area efficiently. The neighboring peasants surrounded by a state forest farm have cultivated lands but lack mountain woods.

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There is a labor force surplus since implementation of the output-related system of contracted responsibilities in farm districts. They live on the mountain but cannot make use of the mountain; they want to get rich but find no ways. They urgently ask that a part of the mountain forest be assigned to them to manage. State forest farms may jointly run with neighboring peasants a section of forest which they cannot maintain. This can be an outlet for the surplus labor force and a way to improve the ties between the farms and the masses; besides, the measure may speed the afforesting of bare mountains and the nursing of middle forests and young growths. It is an important method to elevate the economic returns of the state forest regions and to expedite steps to make the peasants rich; thus it is a good thing benefiting both the state and the people.

Chinese Medicine Production Urged

Beijing NONGMIN RIBAO in Chinese 19 Feb 85 p 1

[Article: "Enliven the Market for Chinese Medicine"]

[Text] Chinese medicine and its practitioners are national treasures which have made a contribution to the existence and proliferation of the Chinese people. They still play an important role in protecting the people's health and enjoy great prestige both at home and abroad. The party and the state constantly pay attention to Chinese medicine and its practitioners. Thirty-five years since the founding of the People's Republic, particularly after the 3rd Plenum of the 11th CPC Central Committee, Chinese medicine production has been definitely growing, but cannot yet catch up with increasing needs; some types are in short supply.

The major reason for slow development is that the "leftist" influence has not been wiped out completely, and the policy of purchase and sale is not on the right track. The state-run medicine departments solely "monopolize" the market and forbid other branches and individuals to make deals. They are unable to buy all the produce of certain varieties, but prevent others from entering into the trade; consequently, it is "hard to sell medicinal materials" in which some cannot be sold; the masses have no choice but to use them as faggots or compost, and even root out medicinal herbs to grow grain. Another reason is that there are too many intermediate links and prices are unfair. The intermediate management units take away much of the profits so the peasants earn less than they would by engaging in other production.

The trade of Chinese medicines is a major income resource for mountainous area peasants. The masses are still willing to go in for medicinal production provided the policy is correct, the price is equitable and the market is good. Previous undue emphasis on the peculiarity of Chinese medicines with stiff regulations discouraged the peasants' zeal to produce them. The fact that the more control, the less produced and the less produced the more control caused a vicious cycle. It should be noticed that Chinese medicinal materials, although they differ from general agricultural byproducts, are also commodities. Their production, circulation and consumption should be just like that of other goods, according to the law of economy, to trade on the basis of principle of exchange

at equal value. Regulations on Chinese medicines should be relaxed more than on general agricultural byproducts because Chinese medicines are special products which can prevent disease and cure sickness. Prices should be fairer. With the exception of protecting natural resources and thus having to strictly control a few varieties, all others should be open to the free market so as to mobilize the zeal of the mountain peasants to engage in the occupation of Chinese medicines, activate the mountain economy and increase medicine production. The drug procurement departments should base themselves on the condition of supply and demand to selectively sign contracts with producers in order to positively complete the purchasing mission. The state-run medicine departments should allow other branches or individuals to deal with those medicines that they are unable to buy.

For the sake of protecting medicinal resources, such rare animal and plant medicines such as musk, bark of eucommia, licorice root and bark of official magnolia should be under tight control and be sold by negotiated price to certain designated departments and not be allowed to be caught, picked up, dug or bought recklessly, thus assuring normal demands and protecting medicine resources.

Open Timber Market Urged

Beijing NONGMIN RIBAO in Chinese 19 Feb 85 p 3

[Article: "Open Up Timber Markets; Enliven the Mountain and Forest Region Economy"]

[Text] Forestry is an important component of the rural economy, occupying a prominent position, particularly in the mountain region economy. Through more than 5 years of economic reforms since the 3d Plenum of the 11th CPC Central Committee, commodity production has developed rapidly, the peasants' income standard has increased and a picture of prosperity has appeared in the countryside. In contrast, the economic reforms in the mountain and forest regions lag behind. The major reasons may be attributed to unified timber procurement, to the blockage of circulation channels and to the forest peasants' meager income and resultant lack of energetic activity. For a long time, timber has been considered to be a kind of indispensable fundamental raw material in the course of national construction and only through planned distribution and allocation can guarantee the implementation of the national plan, not a kind of commodity which should be traded on the free market. Whenever the timber price is determined, this one-sided knowledge causes a rough calculation about the forest peasants' needs to maintain reproduction, a rash measurement on the necessary investment to regenerate forest resources, and, under a closed timber market, pays less attention to the function of relations between supply and demand. The allocated timber price is only about one-half of the market price and, owing to the regulation, timber selling must go through various checks at each level. The forest peasants get a scant origin price and low wages for cutting and transporting the timber. These conditions severely dampen the peasants' initiative to engage in forest production and create a situation in some places of trees rotting on the mountain while people there are poverty-stricken; the quantity and quality of forest resources continuously decline.

For example, the percentage of forest cover in the southeast forest region in Guizhou Province has dropped from 36 to 25 percent since the founding of the People's Republic, the proportion of high-grade famous China fir has declined from 90 to around 30 percent in marketable lumber materials. This is greatly out of step with the vigorous economic development all over the country. It is necessary to adopt effective measures to activate timber circulation from mountain and forest regions in order to elevate forestry production; therefore, opening up the lumber market is obviously imperative under the circumstances.

The state has decided as of this year to call off unified lumber procurement from collective forest regions, to open up the lumber market, to allow forest peasants and collectives to freely put timber on the market, and to carry out a policy of negotiated purchase and sale. This is a further step to relax the mountain and forest regions policy and place timber production on the right course of the commodity economy, to break down the barriers between producers and market, to let the forest peasants be the masters of mountain woods, to gain substantial and increasing proceeds from running a forest, thus opening extensive opportunities for employment and liberal ways of making a fortune for enormous numbers of peasants, especially those forest peasants who live in the provinces of Zhejiang, Fujian, Jiangxi, Guangdong, Guangxi, Hunan, Hubei, Yunnan, Guizhou and Sichuan. Make the best possible use of the lands in mountain and forest regions and have lumber freely distributed among customers; consequently, society will get more high grade lumber and abundant forest products.

We should know in the meantime that opening up the lumber market represents a basic change in forestry policy—from state unified procurement, planned allocation, unified pricing to free market, negotiated purchase and sale, and fluctuating prices along with the market. In order to do well this reformation, it is also essential to correctly handle two categories of relationships:

1. Let timber be freely put on the market, but ban the destructive lumbering of a forest. This is required by the characteristics of woods. The growing cycles of trees are long, easier to cut than to restore, and woods may yield varied social returns. From seedling, nursing, planting to growing to full size, a stand of trees may need over 10 years, scores of years or even up to 100 years. If there are wide denudations, neglecting the law of forest growth and market demand, the results will inevitably cause a huge amount of soil erosion, worsen the environment of forest growth and drop the growth rate of woods, and extensively harm both the society and forest peasants. In order to protect both all and the long-term interests of the state and forest peasants, it is necessary to impose reasonable restrictions on the felling volume in accordance with the requirements of the "forest law." Lumbering is subject to ratification by the authorities concerned; cutting and transporting have to be permitted. The state may provide essential economic support for those forest peasants who are temporarily short of funds, or transfer the possession of middle forest and young growth by evaluating in terms of money and actively create conditions for establishing forest insurance business. Keeping things on the move and in good order can assure lumber supplies and protect both the forest peasants' interests and the natural environment; all the people may get more benefits from forestry development.

2. Prevent steep drops or sharp rises in lumber prices. Competition in the lumber market relies mainly on prices. The market mechanism will operate chiefly by means of lumber price and even guidance by the state should also be realized by way of price. Therefore, reasonable lumber prices can flexibly reflect the relations of supply and demand, accelerate the circulating speed of commodities and favor both the buyers and sellers. Whenever a forest region introduces funds from elsewhere to form various joint operations, it should also be based on lumber prices that both sides can accept. Consequently, whether the lumber market is prosperous or not depends on a fair lumber price system.

In brief, an open lumber market will bring about strong vitality for forest products. We should adroitly guide actions in line with circumstances to quicken the development of a commodity economy in the mountain and forest regions.

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NATIONAL

TREE-PLANTING URGED

Beijing NONGMIN RIBAO in Chinese 13 Feb 85 p 1

[Commentary: "Concentrate on Tree Planting; Time Waits for No Man"]

[Text] It is already past the beginning of spring, and the bright favorable weather in south China makes this the golden time for planting trees. Many areas there are already busy planting trees. There are, however, others that have barely begun. Time does not wait for people; the opportune time should be grasped by all to plant trees and sow grass. Only then will China's task of afforestation be successfully accomplished.

There are two primary reasons for the slowness in some areas in their tree planting this spring. First, some of the cadres and masses have forsaken the long-term benefits of afforestation for the more immediate and short-term benefits that can be derived from agricultural sideline industries. Second, some of the cadres feel that since the two mountains of the responsibility system and private enterprise have been allocated to the households, afforestation has become the concern of the masses themselves. Both of these attitudes should be changed because they are not right and, in addition, adherence to them will also adversely affect the future of afforestation.

Tree planting and afforestation will also help guarantee the goal of quadrupling gross industrial and agricultural output value by the end of the century--an important goal of the 12th CPC Party Congress. This is because afforestation will help create both favorable living conditions and also a foundation for the development of animal husbandry and other industries. Furthermore, the improvement in people's lives will facilitate the realization of the quadrupling goal. From a longer-term perspective, afforestation also affects soil conservation which will benefit thousands of generations to come. Therefore, this momentous task should not be ignored for the sake of more immediate goals. On the contrary, the most opportune time should be used for planting trees in order to create an improved living environment and a better foundation for our descendants.

In the last few years, there has been some reform of afforestation policies. As a result, the two mountains are now allocated to the households, and the masses have accordingly been given encouragement. There has also been rapid growth in both the specialized and key households in afforestation. In

contrast to all the improvement, however, there are other areas where the new policies have hardly been implemented. For reasons that range from people's reluctance to make changes to the lack of such concrete material as funding and seedlings, the masses in these areas have been far from active in the task of afforestation. We therefore should not assume that afforestation will naturally follow the allocation of the "two mountains" to the households. On the contrary, in order to enable the "two mountains" to advance the cause of afforestation, the various local governments and related sectors should implement a greater degree of leadership. More specifically, the cadres should now go directly to the front lines, widely publicize and implement the policies, organize the masses into working teams and quickly get on with the job of spring tree planting. In afforestation, results speak because the goal is for every tree that is planted to live, and every area that is afforested shall remain. There is, therefore, no room for falseness and fakery.

While we promote the cause of individual afforestation, we should, however, also pay attention to the state-managed and collective forests. In the past, these represented the centralized effort of afforestation. Now in the cause of rural afforestation, they will again be used as models.

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CSO: 4007/264

NATIONAL

AGRICULTURAL PRODUCT AS BREAKTHROUGH IN PRICE REFORM

Hefei ANHUI RIBAO in Chinese 15 Feb 85 p 3

[Article: "Agricultural Product Price As Focus of Price Reform"]

[Text] In order to maintain the steady advance of the structural change of the price reform, we should choose as its focus an area of products that is likely to be profitable yet is also unlikely to be swayed excessively by the consumer factor. We should also choose those products that are now commonly affordable within the country, by both enterprises and individuals. We therefore feel that the price reform of the agricultural product should be the focus of the reform of the whole price system within our country.

Since 1978, the state has greatly increased the procurement prices of agricultural products. As a result, the development of agriculture has been greatly stimulated. However, at the same time, there have still remained inequitable conditions within the agricultural product price system, as indicated below. Price levels still do not correspond to the quality of products, and the continual practice of state subsidies for certain items has helped maintain the lack of coordination between demand and supply resulting also in a steady drain on state resources. All these factors had arisen because of the practice of the unified and assigned agricultural product procurement system. Now as we all know, this system had been necessary to facilitate the building of the whole country as well as to maintain the stability of the people's lives under certain circumstances, namely, when there was slow development of both agricultural and commercial products, as well as a scarcity of agricultural sideline products. However the continued practice of this system in our rural economy, now that it has already advanced to commodity production, will only severely handicap the development of the rural economy in its commodity production.

Thus, practice of the unified and assigned procurement system under these circumstances can effectively block the smooth economic flow among the key links of production, distribution and consumption. More specifically, within this procurement system, farmers do not produce according to market needs. In addition, the market is less likely to grow rapidly because of the lack of competition among producers. At the same time, consumers are neither in a position to exercise freedom of choice in their purchases, nor are they able to convey their needs and wishes to suppliers through the

price mechanism. In addition, the continued practice of government subsidized not only increases the burden on the country, but it will also result in low consumption because the lack of the profit margin will effectively discourage the sales departments from attempting to expand the market. The continued practice of subsidies will also worsen any tendencies of imbalance that may already exist between the supply and demand sides of certain products. All in all, the unified and assigned procurement system must be changed now.

In order to advance the development of rural commodity production, the agricultural product price system must be reformed structurally. As a result, the various practices that are regulated within the procurement system will be gradually abolished. As a result, imbalances will no longer prevail. The agricultural product price will, therefore, be determined by the situation in the market under the general guidance of the state. Under the new circumstances after the reform, farmers will plan their production according to social needs and also on a competitive basis. Farmers will thus increase both their product variety and quality and will also try to cut down on overhead in their attempt to raise their own productive level and thus be better able to compete. At the same time, the lack of government subsidies will also stimulate the need of consumers since people who are in managing positions will be encouraged to expand their market and increase their efficiency. Most important of all, the country will be able to spend the subsidy capital on building a national economic system that will be determined by the market system. However, at the same time, the state should also participate in the work of stimulating market growth, thus take such measures as: the "system of protective pricing" to prevent the deflation of agricultural pricing, and "common sotrage" to maintain the supply of food. In addition, the form of "hidden" subsidy will then be converted to "open" subsidy that may be spent, for instance, on increasing some wages. In particular, the coordination of the various reform measures should be noted because in the new system, "the move of one hair will cause corresponding moves within other parts of the body." The various policies and measures that are listed above should be carried out at the same time as the reform of the agricultural price reform since only then will it be less likely to result in social turmoil.

By comparison, conditions are most suitable for the strucutral reform of the agricultural product price system. The most important condition is that within the last few years there has been rapid development in agricultural production in genera. In particular, the productive levels of the major agricultural products, such as grains, cotton and oil, have risen tremendously, putting an end to scarcities of these products. The lifting of restrictions on their pricing therefore is now less likely to lead to price increases. At the same time, for some second-category agricultural sideline products, although a similar move may lead to a temporary rise in their prices, their increased supply will soon lead to a drop in prices, as indicated by the actual situation in Gangzhou Province. Moreover, after the opening up of the pricing system, with improvement in coordination between supply and demand farmers will experience increased benefits. At the same time, their

production will be based on social needs and consumers will reap greater benefits from the greater monetary circulation in the market. The state treasury will also benefit from what will be a decrease in the total amount of agricultural subsidy. Now 70 percent of the agricultural subsidy is being spent on the production of grains and oil. After the opening up of the price system, the hidden subsidy will be converted to open subsidy. Since the state treasury will no longer have to bear this heavy burden, the financial situation will also thus be reversed. It is, therefore, apparent that the state, the market, and the individual producer and consumer will all not be able to deal with the new situation resulting from the opening of the agricultural product pricing system.

Furthermore, the reform of agricultural product prices will also influence the overall reform of the national price system. First, relaxation of agricultural product prices and increasing the role of market regulation will enlarge the volume of agricultural sideline products and enhance the rationality of their product mix. Because farm products and industrial products that use farm products as raw materials constitute a large proportion of consumer goods in China, then the growth of the rural commodity economy will guarantee the formation of a limited buyer's market for consumer goods materials.

Second, following the opening of the agricultural product pricing system, the great rise in the agricultural economy will also stimulate overall economic development. As a result, the national treasury will increase its income and the country will also have greater resources in its continual support of pricing reforms in other areas. At the same time, the increased consumption in rural areas will also lead to greater demand for more industrial products. As a result, this tendency will encourage the withdrawal of currency from circulation, thus reducing consumption pressure during the changes of the pricing reform.

Third, after the opening of the agricultural product pricing system, the pressure of open market competition will force peasants to reduce consumption, on the one hand, and increase productivity on the other. This will increase the farmers' ability to cope with the reform of prices for energy and agricultural production materials. Fourth, because farm product prices are the basis of the overall price system, if the pricing system in this area has been smoothly regulated, then this will become a basis for price adjustments in all other areas. At the same time, favorable conditions will also be created for the comprehensive structural reform of the entire pricing system. Therefore, reform of the management structure for farm product prices may properly be considered the focus of the nation's overall pricing reform.

Of course, the work involved in the reform of the agricultural product pricing system is extremely complex, and should, therefore, be carried out steadily and with great care.

NATIONAL

READJUSTMENT, REFORM OF PRICE PARITY FOR FARM PRODUCTS

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 2, 23 Feb 85 pp 44-48

[Article by Zheng Guibin [6774 6311 2430] of the Shandong Academy of Social Sciences Economic Research Institute: "Several Issues Concerning Readjustment and Reform of the Price Parity System for Farm Products"]

[Text] Readjustment and reform of price parity [or comparative price] systems for agricultural products has been a key point in recent reforms of farm product pricing systems. The standards or basis to use, which farm products should be the core prices and the level of prices to use as a starting point are major questions of direction and policy that are related to the ability to rationalize price parity systems. Based on the new situation in rural economic development, this article will touch on some perspectives related to these problems in theoretical circles and discuss some of my rough viewpoints on these problems.

I. The Basis for Evaluating the Rationality of Price Parities for Agricultural Products

Marxist political economics feels that commodity price ratios are restricted by inherent ratios of value and are subject to the effects of demand factors for the commodity. For this reason, evaluation of the rationality of price parities for farm products should involve comprehensive evaluation of the intrinsic value of and demand conditions for farm products.

If we exclude demand factors and begin our analysis on the basis of the formation of prices, then the only objective standard for evaluating the rationality of farm product price parities is the correspondence between the price ratios and value ratios of farm products during mutual exchange. Under current technical and managerial levels, however, we are unable to measure the value of a farm product directly. We can only do analysis through measuring the value of a farm product by converting it into a monetary form. For this reason, evaluation of the rationality of prices is focused on a comparative examination of the proportional relationships between the material costs of the farm product (C), the costs of labor (V) and the results (m).

Different comparisons of each of the factors that constitute the price of a farm product form different indices. Four common indices used in pricing departments are: net value of output per standard labor day, cost-benefit ratio, net value of output per mu and net benefits per mu. Although these four indices are inherently related, there are major differences in the numerical values they reflect. I feel that the net value of output per labor day and cost-benefit ratios should be the primary evaluation indices. The reason is that, first, using the net value of output per labor day actually requires that the net value of output for the same amount of live labor that is consumed in production of different agricultural products should be approximately the same. A comparison of cost-benefit ratios also requires that price ratios and cost ratios be identical. Secondly, it can avoid blind shifts of labor and capital for comprehensive development of commodity production in rural areas. Third, these two indices are good reflections of the relationship between inputs and output. Maintenance of overall equilibrium between them is beneficial for improving the economic results of agricultural production.

There are some comrades in theoretical circles at present who advocate using net benefits per mu or net value of output per mu as indices for evaluating price parities. Their reason is that China has a small amount of cultivated land per person and the greatest concern of the peasants is the amount of wealth they are able to create on this limited amount of cultivated land. This would be the net benefits or net value of output for a particular product planted on one mu of land. I feel that this sort of analysis relates to the realities of the rural areas of China before the relaxation of rural economic policies. Administrative outlets for production were simple in those days and it was difficult to shift large numbers of laborers. With 800 million peasants growing food to eat, everyone's concern was the amount of income created per mu of land. Commodity production is developing in a major way in rural areas now, and the peasants increasingly are becoming concerned with the economic results of the consumption of live labor and capital. The former phenomenon of failing to measure costs and labor inputs has changed. This has made the use of indices to compare the relationship between income and land incapable of evaluating the rationality of price parities.

Evaluation of the rationality of price parities should begin not only with an analysis of the basic aspects that form prices but also should involve consideration of the demand conditions for farm product prices that form price parities. Demand for farm products is determined by the structure of production. This makes it possible for us to evaluate the rationality of price parities according to the production situation for farm products. It must be pointed out that many factors affect farm production and that not all are included in price parities for farm products. Excluding state production plans, price levels are the most important factor peasants consider in choices of production management, but they also consider at different times natural conditions,

technological conditions, the amount of labor, their own consumption needs and sales channels and many other aspects. When substantial changes occur in the structure of farm production, these factors must be given full consideration. Some comrades propose using only a single indicator to evaluate the rationality of price parities—whether or not the planted area for farm products is stable or declining. I feel that this denies the foundation of price parities and that it ignores the effects of other factors when considering demand. It often is difficult to see the true face of price parities using this method. The effects may be adverse if used to readjust the prices of farm products. It is superficial, therefore, to look only at demand.

Evaluation of price parities for farm products should give appropriate consideration to historical price parities and foreign price parities. Historical price parities reflect historical production structures and production levels and cannot be used as the primary basis for evaluation of current price parities. The continuous nature of the development of agricultural production, however, makes them an important reference. There has been some theoretical debate on the question of examining foreign price parities. Many comrades feel that they reflect the production and consumption structure of foreign countries and cannot be used as a reference for farm product price parities in China. This is not proper. As China implements the policy of opening up to the outside, commodity production in China will become more closely linked with international markets. China has production advantages for certain farm products because of different economic and natural conditions, and we should make full use of them to develop the production of these products. We should, therefore, discard the traditional perspective of the natural economy and use information from foreign or international markets as appropriate to set price parity policies for certain farm products.

II. The Question of Which Farm Product Prices Should Be the Core

The question of which farm product prices should be the core is an extremely important one that must be answered for readjustment of price parity systems. Some comrades now propose that the enormous changes in rural economic patterns mean that readjustment of price parities should use primary agricultural and sideline products that are representative of a particulare area as the core. I feel that this perspective deserves discussion.

As everyone knows, China historically has stressed using grain prices as the core when setting farm product price parities. It can be stated that this is an important farm product price parity policy in China. Why should grain prices be the core and the standard for price parities? The reasons are:

One, it is determined by China's fundamental national conditions. China is an economically backward nation with a large population and little land. Agricultural labor productivity is low, as is the percentage of marketed products for grain. More than 70 percent of China's land is used to produce grain and grain production occupies the primary position in agricultural production.

Two, it is determined by the position of grain in the national economy. Grain is an important raw material for industrial departments. Moreover, the proportion of grain that is purchased is large, equal to about one-third of total purchases of farm and sideline products. For this reason, normal production and circulation of grain must be guaranteed.

Three, the selection must be made on the basis of satisfying the consumption needs of the popular masses. Grain is the most basic consumption material of the Chinese people. It also is the material foundation for comprehensive development of rural commodity production.

Four, it is needed to stabilize prices. Grain prices affect all market prices. No other farm products play such a special fundamental role in market prices.

Because we have implemented a policy of making grain prices the core of farm product price parities since the nation was founded, the implementation of this policy has been successful in an overall sense despite complications during certain years. The rural areas of China now are in the midst of profound reforms. Should we continue to adhere to this policy? I feel that we should maintain it.

First of all, the central position of grain production in agricultural production has not changed. No other farm product has developed so much as to surpass the primary position of grain production. Grain production remains at the head of agricultural production. Almost every area of China (with a few exceptions) produces grain, and grain production has the characteristic of universality. Using grain as the core can permit a nationally-unified price parity standard and lead to overall equilibrium in farm product production in all areas. Otherwise, the parity price standard is lost and major gaps will appear between regions.

Second, improvement of the people's standard of living will lead to major developments in the food products, distilling, pharmaceutical, chemical, textile, dyeing and other industrial departments. This means that demand for grain will continue to grow.

Third, changes in the consumption structure of the popular masses cannot be detached from development of grains. The question of feeding one billion people still must be considered. China's total population will continue to expand at a rate of more than 10 million

per year for the next decade or more. There will be increased demand for grain as the cultivated land area of China gradually declines. This means that guaranteeing grain production remains a very important problem.

Finally, grain still restricts farm product price levels and overall market price levels.

Proposing that the primary farm and sideline products that are representative of a particular area be used as the core for readjustment of farm produce price parities is in reality a proposal that there be "multiple cores." Each area has different representative agricultural products. Cotton regions have cotton products, animal husbandry regions have livestock products and fishery regions have aquatic products. "Multiple cores" in reality is no core at all and denies the central position of grain production.

The unified standard for price parities formed in this way will be lost and price parity relationships will become chaotic. Doing things in this way would cause reforms in farm product price parity relationships to depart from China's national conditions, would lead to a loss of proportional equilibrium in agricultural production and would eventually affect the people's standard of living and the entire nation economy. We cannot, therefore, propose "multiple cores."

Although some comrades propose using grain prices as the core, they feel that this is equivalent to placing grain production in a favorable position. This is a question that must be thought through carefully. We are speaking of China as a whole when we say that grain prices should be the core of readjustment and reforms in farm product price parities. It does not mean that grain prices should be more advantageous than other farm products. There are major differences in natural and economic conditions in China as well as some degree of difference in the production experience and technical levels of the peasants. Making use of advantages and avoiding disadvantages requires that concentrated and primary producing regions for a particular farm product obtain greater benefits through prices than other regions. In concentrated grain-producing regions, grain prices should be set first of all to guarantee reasonable benefits for grain farmers. This can be beneficial for specialization of grain production and the construction of commodity grain base areas. Cotton, oil-bearing crops, fruits, livestock and other concentrated producing regions likewise should provide more benefits for these primary products in terms of prices. This is an objective requirement for promoting continual socialization and specialization in agricultural production and for accelerating the development of the rural commodity economy.

Those comrades who propose that grain be placed in an advantageous position feel that this could be effective in changing the situation where grain prices have been at the "bottom of the barrel" over the

past few years, and where it has been difficult to stabilize the area planted in grain. I feel that raising farm product prices to conform with readjustment of rural production structures since 1978 has, in effect, ensured that the rate of increase in grain prices has been lower relative to other farm products. This inevitably would lead to fluctuations in the area planted in grain. To deal with this problem, we have adopted a series of policy measures such as higher prices, bonuses, and so on to transform cash cropping over the past 2 years. This has gradually stabilized the area planted in grain. Although this area may continue to decline, improvements in per-unit-area yields means that total grain output will not drop but instead will increase substantially. A suitable reduction in the area planted in grain in places not suited to planting grain is rational and can benefit rational readjustment of the distribution of production. The development of grain production has led to a stable decline in grain prices on rural markets, sometimes much below state purchase prices. Practice has told us that grain prices should be used as the core on a national scale only to balance price parities with other agricultural products. In this way, regions suited to grain or commodity grain base areas will be able to receive greater benefits. This will make it easier to stabilize the area planted in grain and make it possible to guarantee grain production. This does not mean, however, that grain prices should be higher than other products in all areas.

We now must seek a correct solution to the following problems of understanding and reality:

First, using grain prices as the core does not mean that grain prices are unchanging.

When we propose that readjustment of price parities should have grain prices as its core, this does not mean that grain prices never change and that the prices of other farm products should be raised or lowered to balance price parities with grain. In looking at the exchange of industrial and agricultural products in China, the prices for farm products remain too low. There will be a tendency toward rising farm product prices for several years into the future. A consideration of this long-term goal for farm product prices indicates that raising grain prices to readjust farm product price parities is most suitable.

Second, it is not good for readjustments in farm product parity prices to be too large.

Some instability remains because the substantial increase in prices has been in effect for only a short time, the peasants' enthusiasm for production has just been motivated, and readjustments of rural production structures have just been implemented. Readjustments of price parities should not be excessive. If the degree is correct, readjustment can proceed. If the degree is wrong, readjustment should be slowed.

III. The Problem of What Parity Price Level To Use in Readjustment and Reform

An important phenomenon in China's current farm product price parity system is the variety of price parities that exist among farm products that form a sequence of price parities. How should this phenomenon be viewed? How can we determine rational parity price levels? These are troublesome problems that are encountered in readjustment of parity price systems.

The variety of price parities found among farm products refers to the existence of two or more proportional relationships among farm product prices in a particular situation and time period. If we leave out rural market trade and only view the situation for state purchases of farm products, there are posted prices, higher prices for over-quota purchases (or higher proportional prices), negotiated prices and many types of hidden higher prices (bonuses, subsidies apart from prices, returned industry profits, etc.) that each form different parity prices. In order to correctly analyze the price parity situation and its effects on production, we might as well combine all forms of parity prices and classify price parity relationships into three levels: 1) Price parities formed on unified posted purchase prices set by the state; 2) Price parities that include over-quota purchases and negotiated prices (posted purchase prices and an average value of the higher amount of bonus price and negotiated price purchases). 3) Include a variable higher prices in the structure of parity prices. The first level is the price parity of posted prices. The second level is the ratio of the actual average price calculated for unified (and assigned) purchases, over-quota purchases and negotiated purchases, and can be called the price parity of real prices. The third level includes price parity of measures outside of prices, and can be called the ultimate price parity.

Because different pricing patterns and measures are used for different farm products, they are similar in that there are very few relationships of equal proportion for the ratio between higher prices and hidden higher prices. The result is that the three-level price parities for exchange of farm products often form price parities of different proportions, manifested as different price parity levels. Generally speaking, the proportion of each level of price parities for farm products can have the following different situations: 1) In mutual exchange, one of the products being exchanged has a higher price, while the product for which it is being exchanged has a posted purchase price. At this time, the proportional exchange, which is the level of price parity, is raised by steps. The degree of increase is equivalent to the price levels of each level for the exchanged products. 2) There is a product for which no higher-priced products are available but where some measure has been taken by the product being exchanged. The proportional exchange in this instance would fall by steps. 3) When both parties to the exchange adopt similar

higher price measures (or include hidden higher prices), the purchase price would rise by an equivalent proportion, which would indicate exchange at a constant proportion. Under these conditions, the price parities for two (or three) levels will coincide. 4) When both parities to the exchange implement higher price and hidden higher price measures, all purchase price levels will change, but to differing degrees. In this instance, the exchange proportion can be rise or fall, or there may be both increases and decreases for three levels.

Farm product exchange price parities in China are primarily of the fourth situation. In Shandong Province, for example, the price parity for posted prices between cotton and wheat in 1980 was 1:9.7. Because prices for the two sides were raised to differing degrees, and because purchases at higher prices constitute different proportions of total prices, the prices actually calculated for cotton and wheat exceeded the posted prices by different degrees. Cotton was raised by 31 percent, while wheat was raised by 27 percent. This caused the price parity of actual prices for cotton and wheat (excluding negotiated prices) to become 1:9.45, a 3 percent increase over the price parity of posted prices. The method of award sales of 2 jin of grain for 1 jin of cotton in cotton purchasing in combination with the price differentials among the unified sales prices for grain and over-quota purchase, negotiated purchases and market prices, caused a disparity of 0.06 yuan or more per jin. The result was that some communes and brigades or peasant families turned it over at higher prices by selling it to the state or on rural markets to take advantage of the price differentials. No hidden methods were used for wheat purchases, however. In the area of award sales of chemical fertilizers and other materials in short supply, cotton has received better "treatment" than wheat. Moreover, cotton-growing regions in the north also benefitted from a 5 percent non-price subsidy at the time. If we consider just award sales of grain, the actual price of cotton was 8 to 9 percent higher, so the price parity level for cotton became more than 1:10, an increase of more than 5.8 percent over the price parity at actual prices. We can see that the multilevel price parities among farm products are interlocking and have interacting changes. The different parity price levels of each level determine that the different factors that affect price levels in two-sided exchange have interrelated roles.

The combination of all the price parities for farm products has complex effects on the production and circulation of farm products. If the proportion of over-quota purchases or negotiated purchases is high for a particular farm product and it receives preferential "treatment" in the area of subsidies, it will receive greater benefits. With the opposite situation, the benefits would be smaller. As the various factors that affect the level of results undergo changes, new imbalances may appear continually in parity price relationships that will stimulate producers to produce farm products with higher benefits. The regional differences in the various factors

that determine prices means that their effects will be different in different regions. In the old cotton growing regions of southern China, for example, over-quota purchases of cotton account for about one-third of all purchases. The benefits from planting cotton are lower than for planting grain. A situation of dropping cotton to plant grain has appeared in some areas. In the cotton-growing regions of the north, however, over-quota purchases account for about two-thirds, so the area planted in cotton is expanding. Opposite conditions have appeared for the results of one crop. In the area of farm product circulation, multiple price parities not only regulate increases or decreases in amounts purchased or structural changes, but also affect allocation and sales between regions or commercial linkages. There is some disorder in the area of higher prices and hidden higher prices for farm products at the present time and there is an excessive difference between the actual price parities or ultimate price parities for each type of farm product. This has caused blind development of production. Circulation also has many abnormal phenomena like shipment for sale elsewhere, obtaining higher prices and then buying more, competing to raise prices, allocational difficulties, and so on. This also has created an imbalance between positive and negative effects for different regions or products. This makes better arrangement of price parity relationships to eliminate negative influences extremely important for readjustment and reform of farm product price parity systems.

When arranging price parity relationships, what type of price parity level should we look to? I feel that the ultimate price parity reflects the actual benefits to the peasants from sales of farm products and that it determines the production and circulation of farm products. This means that the target of readjustment should be focused on the level of ultimate price parities. In our theoretical analysis and actual work over the past few years, we often have only written about and paid attention to price parities for posted prices. Real economic life has told us that price parities for posted prices are a false price parity relationship that now cannot accurately reflect changes in the profit rate for farm products and their influences on production and circulation.

Full consideration must be made when using ultimate price parity levels for readjustment and reform of price parity systems. We must control the factors that determine the price levels for the exchange of farm products between two sides and their movements to achieve rational price parity levels that can stabilize the structure of production. This is the same as saying that the different changes in higher prices and hidden higher prices cause the ultimate price parity to reach or approximate rational price parity levels.

In the concrete sense, comprehensive control of the multiple price parities among farm products requires good work in three areas:
1) Actively creating the conditions for a fundamental solution to the problem of higher prices for over-quota purchases of farm products.

Higher price methods can be changed first when the conditions are not yet ready. The implementation of the method of proportional higher prices for certain farm products in recent years has effectively stabilized farm product purchase price levels and also has stabilized to a certain extent their price parities with other farm products. 2) Farm products for which the posted purchase prices or purchase prices including higher prices are basically rational can adopt other methods for higher pricing. Other farm products gradually should reduce the number of auxiliary prices. 3) We should examine concrete situations and restrict the scope of award sales of materials and lower award sales standards in a planned, step-by-step manner. There are more than 60 types of products under unified stipulations nationwide for award sales of grain alone. The number of varieties stipulated has reached more than 200 in some areas. Under conditions of rapidly developing commodity production in rural areas, readjustment of unnecessary award sales is essential. Award sales that must be retained can be changed over to selling prices that are the same as or slightly higher than buying prices to reduce or eliminate the effects of award sales on price parity levels.

It should be pointed out further that the complexity and variety of higher prices and covert higher prices for farm product purchases make it extremely difficult to rely solely on pricing departments to sustain rational price parities for farm products. This means that, with a prerequisite of gradually achieving exchange of industrial and agricultural products at equal value, we should simplify, combine or even eliminate the various higher price and hidden higher price measures to achieve singularity, standardization and normalization of farm product price parities. Only in this way will it be possible to achieve rationality in farm product price parity systems.

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REFORM OF PRICE DIFFERENTIALS FOR AGRICULTURAL PRODUCTS

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese
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[Article by Zhou Jiaxiang [0719 1367 7534] of the State Pricing Bureau: "My Opinions on Reform of Various Price Differentials for Agricultural Products"]

[Text] Commodity circulation in the rural areas of China is in the midst of profound reforms. Farm product prices are the key in the reforms. Policies concerning regional price differentials, quality price differentials, seasonal price differentials, buying and selling price differentials, whole-sale-retail price differentials and other forms of differential pricing are an important component of state policies for the prices of farm products. This article will present some preliminary viewpoints on the question of reforming the various price differentials for agricultural products.

I. There Should Be Rational Purchase Price Differentials for Farm Products

Some amount of cost is involved for shipping, packaging, commodity rearrangement and other expenses during the circulation of farm products from rural areas (or small towns) to distribution centers and selling markets. Capital also must be used, interest must be paid, and some loss of goods also may occur. The different geographical conditions and transportation conditions determined by the distance of a producing area lead to different expenses for transportation and losses. This is the objective foundation for the formation of regional differentials in farm product purchase prices. Different producing regions with identical farm products at the same time and following equally rational routes of production and marketing will have different purchase prices. We refer to these differentials as regional price differentials in the purchase prices for farm goods.

During the period shortly after the nation was founded, the long period of wartime destruction and the separation of cities and the countryside seriously obstructed the circulation of materials between cities and rural areas. The peasants produced very small quantities of agricultural products which not only were low in price but couldn't be sold as well. Neither could the high-priced industrial goods they needed be brought in. There were major price differentials in exchange of industrial and agricultural products. To deal with this problem, the CPC Central Committee formulated the economic policy of "equal consideration for public and private, benefits

for labor and capital, mutual assistance between cities and rural areas, domestic and international exchanges." They permitted management by individual businessmen and sold a large amount of local products. Commerce implemented the price policy of "encouraging long-distance transport for sale, developing materials circulation between cities and rural areas, reducing the burden on consumers, increasing peasant incomes, and providing benefits for producers, shippers, sellers and consumers." Purchase prices for farm products at the time generally were set beginning at the port or large urban consumer market to a medium-level distribution center, and then from county seats to rural markets. Prices were set with reductions for shorter distances, deduction of expenses at all levels, interest and profits. Regional price differentials were fairly large. As socialist commerce developed and grew, the state needed to squeeze individual wholesale commerce out of circulation channels gradually. In 1953 it adopted the price policy of "slight benefits for every city, rationality of town and countryside," and gradually reduced regional price differentials. These policies played a positive role in increasing peasant incomes and completing the socialist transformation of individual commerce after they were implemented.

The failure to make distinctions for products and regions during their implementation, however, caused prices for agricultural products to be "deducted from until they toppled." The result was that some farm products that had low prices in selling regions or at the port had such low prices by the time they reached the county seats and villages of frontier or mountainous regions that some purchase and sales prices were changed frequently. This had negative effects on production. The CPC Central Committee and State Council decided in 1958 that: "purchase prices for agricultural products in the future should be set according to rational price parities among the farm products of a region. With a prerequisite of not violating this principle, some regional price differentials should be retained as appropriate to encourage the circulation of commodities." Later, as a result of "left" influences, another type of deviation appeared during implementation of this decision. Regional price differentials for farm product purchase prices basically were eliminated and most of the expenses of commodity circulation were borne by the state. This is one of the reasons for the state's excessive burden of subsidies for farm product purchase prices.

At the present time, a single posted purchase price may be used for a single grain or edible oil product in a single province or in several provinces. There currently is a single national purchase price for cotton. The price in the north is set at 30 percent posted price and 70 percent higher over-quota purchase prices. The price in the south is set at 60 percent posted price and 40 percent higher over-quota purchase prices. There are only two large pricing areas in the country. Single national posted purchase prices also exist for such things as tobacco, fiber crops, silkworms and so on. Only very small regional purchase price differentials were retained for aquatic products, pigs, cattle, sheep, eggs and other fresh commodities. Combined with the difficulty in changing the selling prices for some primary farm products, the result was that some were bought and sold intermittently and some had very small price differentials. Administrative losses in commerce seriously obstructed rational commodity circulation.

How should regional differentials in purchasing prices for farm products be reformed in the future? My preliminary opinions are: 1) Areas with relatively easy communications should maintain rational price differentials for different producing regions for the expenses of shipping common farm products that move on identical rational circulation lines for production and marketing. 2) Areas with more difficult communications should strive to maintain differential prices for all shipping expenses for farm products. Some low-priced products whose production was negatively affected following implementation of regional price differentials can maintain some price differentials for shipping costs. 3) In areas with easy transportation, differential prices for shipping losses can be maintained in addition to shipping expenses for pigs, eggs, fruits, aquatic products and other fresh goods. 4) A single price for an entire province can be set for certain lightweight, high-priced products for which shipping costs account for a small proportion of the costs of the commodity (musk, pilose antler, etc.). 5) The maintenance of regional price differentials for some small local products or medicinal plants that have low purchase prices and small production benefits can have negative effects on production and purchasing. A single province can set local prices or even a provincial price. (6) In a small number of minority nationality regions in frontier areas with extremely difficult communications, the state can set a guaranteed minimum price and allocate special funds from their revenues to subsidize the transportation of some low-priced products needed by the state or markets that can be shipped out after being bought in rural areas and for which there are sales avenues on markets. Or it can permit administrative departments to "have the large lead the small" and allow some commodities that sell quickly and which provide slightly higher profits when shipped out to make up for the losses from low-priced unmarketable commodities for which there are small regional price differentials and thereby enliven the economy.

II. Agricultural Products Also Should Have Rational Price Differentials for Marketing Regions

Marketing region price differentials for farm products refers to the differences between purchasing prices in producing regions and wholesale prices in marketing regions following their purchase in producing areas and shipment to the selling region for marketing. They also become the allocational price that is based on purchase prices in producing regions with the added circulation costs and profits in producing areas. They become wholesale prices after expenses and profits in marketing areas are added. Marketing region price differentials refer to the expenses for identical products that arise as a result of changes in spatial displacement and that must be compensated.

There are two main problems in marketing region price differentials for farm products at the present time. The first is that many regions basically plan and organize circulation and set selling prices according to administrative regions. This does not conform to the laws of natural commodity circulation. Many commodities are shipped in roundabout ways or are shipped back and forth. Circulation expenses are irrational, which has led to

irrationality in the selling prices for some farm products. The second problem is that there are too many administrative links for many farm products. Generally, there are four or five circulation links where the products must be bought by purchasing agents at the grassroots level and handled at the county level, with the prefecture or province organizing their shipment to marketing regions for wholesale and retail marketing, with every level adding on expenses and profits. The result is marketing price differentials are excessive for some farm products and negative effects on purchasing and marketing. As reforms further open up commodity circulation systems and increase the number of channels while decreasing the number of links in the future, we must break through the boundaries of administrative regions and rationally organize commodity circulation according to natural lines of circulation, remove unnecessary circulation links (usually, such things as grassroots purchasing and county-level administration of allocation) to implement direct allocation and shipping, reduce commodity circulation expenses and formulate rational selling prices. Moreover, for various reasons, buying and selling prices for some primary agricultural products are "taken down and put up" between some producing areas and marketing regions, and some have very small regional price differentials. They cannot compensate for rational circulation expenses and have negative effects on the smooth flow of goods.

III. There Should Be Rational Readjustment of Quality Price Differentials for Some Farm Products

Quality price differentials for farm products refers to the differences in the amount of live labor and material labor invested in production, harvesting and processing. They are formed of product variety price differentials, product quality price differentials, grade price differentials and such. The principle of quality price differentials for farm products is that price is set according to quality, with high prices for high quality and low prices for poor quality. The reason is that, generally speaking, more labor and time is expended in the production of high-quality commodities. A greater average amount of socially necessary labor is required, or unit output may be low while the price of a unit of product is high. Although quality price differentials are specified for most farm products at present, there still are many problems: 1) Some make no distinction between price differentials for product varieties and product quality. 2) The price of some farm products is set simply according to their weight, with no consideration of their value. Examples include sugarcane and sugar beets, the raw material of sugar making. They are priced only according to weight, with no concern for their rate of sugar output. 3) Quality standards for some farm products are not adapted to the changing new situation. An example is live pigs under conditions of inadequate purchasing power in the past. Quality price differentials were set according to the rate at which they dressed out and the fat around their middle. A higher price for large fat pigs was needed. As the people's standard of living rises, their demand for animal fats will decrease. Fat meat is quite unwelcome in the cities. This requires that production of fat pigs be restricted and that the development of pigs providing lean pork should be encouraged. The price differential between fat and lean pork should be expanded as

appropriate in some large and medium-sized cities as needed. 4) Some farm products have no scientific quality standards and have their prices set according to grades that follow historical custom. There is an even greater shortage of scientific testing equipment when they are purchased. Most depend entirely on the decisions of purchasing personnel who lack scientific standards.

We must expand the price differential between high quality products and low quality products to encourage improvement of product quality. Rational product variety and product quality price differentials should be maintained for all farm products in the future, and there should be "penalty prices" when needed to cause them to die out. I propose using a "sugar content rate" for sugarcane and sugar beets and a "filature rate" for silkworms to set quality price differentials. Cities with the proper conditions can set prices according to place or fat versus lean content for pork. I also propose that standardization work be strengthened to actively revise and formulate quality standards for primary farm products at the state and provincial levels. We should strengthen the development and manufacture or importation of new measures for inspecting farm product standards, improve inspection measures and correctly implement policies on national standards and setting prices according to quality.

IV. Rational Seasonal Price Differentials Should Be Restored

The great majority of agricultural products are produced seasonally and consumed throughout the year. After being purchased by commercial departments, a certain amount must be held in reserve before market supplies can be guaranteed. Commodity storage requires the payment of some reserve and storage fees, and some losses often occur. This takes up capital and requires the payment of interest, which must be compensated. This is the objective basis of seasonal price differentials. For this reason, seasonal price differentials for grain, cotton, oil-bearing crops, tobacco, fiber crops and other primary agricultural products that have been eliminated should be restored. Although seasonal price differentials still are maintained for fresh commodities like vegetables, fruits, aquatic products and fresh eggs, the price differential is too small for most of them. The expenses of reserves cannot be compensated and the role they play in regulating slack and busy seasons is inadequate. They should be expanded somewhat in the future as appropriate.

V. Wholesale Price Differentials Should Be Arranged to the New Situation

Wholesale price differentials for farm products refers to the difference between wholesale and retail prices in a single market for a single product at a particular time. Retail commerce must assume the burden of work that wholesale commerce has not completed, sending the commodities directly into the hands of consumers. It consumes a certain amount of labor and requires the payment of expenses like short-haul transport, management and administration, interest in capital, loss of goods and so on. They form retail prices that are above wholesale prices. The size of the wholesale-retail differential for farm products should be determined according to

the amount of services provided by retail departments (or, from the perspective of retail enterprises, the difficulty in handling the commodity), the value of the commodity and the speed of capital turnaround in combination with market selling conditions.

One method for reform of commodity circulation systems that are adapted to multiple channels and multiple economic components in current policies on wholesale-retail price differentials is to change the past practice of setting either a wholesale or retail price according to the buyer. Places which in the past set all prices according to wholesale prices for all who were direct consumers regardless of the size of their purchase should change to using quantities to determine whether to sell wholesale or retail. Wholesale prices should be used for all purchases from wholesale starting points. Wholesale and retail sales both can implement price differentials according to amounts sold. The larger amount being purchased reduces the consumption of labor in commercial enterprises. Capital turnover is faster and circulation expenses are lower. It is rational to give the buyers a certain "discount" at a lower price. The second thing is that, in order to meet the need for multiple channels of administration and systems of contractual responsibility, farm products where no distinction is made between wholesale and retail, such as grain, should restore wholesale prices and formulate a wholesale-retail price differential and retail price. The third is that rational readjustments should be made in wholesale-retail price differentials that are too narrow or too broad.

Buying and selling price differentials for farm products refers to the differences between local purchase and marketing prices for a particular farm product. It does not include purchases from other areas or the "import sales differential" for shipping back to the selling region that is of such widespread significance. The general principle for purchase and marketing price differentials is that they should seriously consider expenses and calculate a single link from the point of purchasing to retailing. The reason is that state-run commerce and supply and marketing cooperatives are the primary purchasers of farm products in producing regions. If the buy and sell price differential is too great, marketing prices will be high and trade fair prices even higher. The peasants will be willing to sell their farm products only in the markets and unwilling to sell to the state. This will have negative effects on purchasing. Farm products such as live pigs and pork or fiber crop and fiber products that are purchased locally and put through simple processing locally for local sale should have a buying and selling price differential that is based on supplies.

12539

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23 July 1985

NATIONAL

INCREASE IN PEASANTS' INCOME, COST OF LIVING

Beijing NONGMIN RIBAO in Chinese 11 Mar 85 p 1

[Article: "Last year, the Net Income per Capita for Peasants Reached 355 Yuan, the Consumer Standard of Living Continued To Rise, Per Capita Expenditures Averaging 273 Yuan"]

[Text] The average per capita net income for peasants reached 355.3 yuan in 1984, an increase of 14.7 percent compared to 1983. Of this, income of a productive nature accounted for 313 yuan while non-productive net income averaged 42.3 yuan. The largest increase was in productive income, showing a continued good trend in development of the entire rural economy.

This conclusion was reached after the sample survey team of the Bureau of Statistics conducted a sample survey of 31,435 rural households in 600 counties spread throughout 28 provinces, autonomous regions and municipalities directly under the central government.

The main reasons for the increase in peasant income last year are: 1) the amount of agriculture sideline products sold increased and the proportion of marketed products rose; 2) along with readjustment of the rural industrial structure, the number of peasants engaged in secondary and tertiary industries increased, the sources of income were expanded and the income structure tended to be more multistructured; 3) the rural and small town enterprises developed quickly, and peasants obtained increased income directly from them.

Looking at the situation of various areas: Last year, there were three cities, Shanghai, Beijing and Tianjin that had per capita incomes of over 500 yuan; seven provinces, Jilin, Liaoning, Jiangsu, Zhejiang, Heilongjiang, Guangdong and Shandong, had per capita incomes of between 400 and 500 yuan; and roughly one-fifth of the provinces and regions had per capita incomes of less than 300 yuan.

According to the survey made by the sample survey team of the State Bureau of Statistics, the peasants' living standard continued to climb in 1984. The per capita cost of living amounted to 273.4 yuan, an increase of 10.1 percent over 1983.

In the cost of living, the per capita expenditures for cultural services increased by 20 percent over last year and increased at a much faster rate than the expenditures for consumer goods. The proportion of expenditures that was used for food and clothing decreased while that for housing, undesignated spending and heating increased.

JPRS-CAG-85-024
23 July 1985

FARMERS MUST IMPROVE GRAINS TO MEET MARKET DEMAND

Beijing NONGMIN RIBAO in Chinese 13 Feb 85 p 1

[Commentary: "Plant Superior Quality Grain According to Market Demand"]

[Text] "Scarcity creates high value." This principle ties in with the natural rhythm in pricing. The same principle also underlies the situation of foodgrains: their prices rise when demand exceeds supply and prices fall when supply exceeds demand. Therefore in order to improve the economic results of grain cultivation, the market demand for grains must be taken into consideration.

In the past, the system of unified procurement and marketing had been implemented, because the total quantity of edible grains was barely sufficient to meet demand. This long-standing, unchanging situation had led the farmers to disregard market demand in their grain production. This trend, however, cannot continue any longer. After the 3d Plenum of the 11th CPC Central Committee, the total production of foodgrains has been increasing annually, and now there is already a small surplus in supply. Therefore, the state has decided on the following policy: It will continue to procure most of the grain production at higher prices. In addition, however, farmers will be allowed to sell a few billion jin of grains without any price restrictions as a measure to stimulate the open market. The level of the selling price of these several tens of billion jin of grain will, therefore, depend on market demand in terms of both product variety and quality.

Now all variety of grains, whether they are for human or animal consumption or used in industrial processing, are required by market demand to be the right kind and be high in quality. More specifically, as all grain producers should note, edible grains should be refined in quality, feed grains should have high nutrition value, and industrial grains should be consistent in their quality. As examples, Dishan Village of Hanyang County in Hubei Province has actively increased acreage of high-quality wheat in order to catch up with the high demand. Xiaoyi County in Shanxi Province has also increased production of Chinese sorghum to be used as industrial raw material. These cases of grain cultivation done in order to fulfill specific local demands represent the right choices and they should be used as models.

In the economically advanced countries, farmers listen to the radio while driving their tractors. They may change their grain variety at the last minute depending on the information they get on market demand. After the development of a commodity economy in China, the farmers should also keep a close watch on the market if they want to become rich through grain production.

12740

CSO: 4007/264

NATIONAL

DRAFT NATIONAL PROGRAM FOR FODDER INDUSTRY DEVELOPMENT

Harbin HEILONGJIANG RIBAO in Chinese 18 Jan 85 p 2

[Article: "State Economic Commission Issues Draft of National Program for Development of the Fodder Industry by the Year 2000"]

[Text] According to XINHUA, during the last few days, the General Office of the State Council transmitted the "1984-2000 National Program for Development of the Fodder Industry (Draft)" recommended by the State Economic Commission to all provinces, municipalities, autonomous regions and departments concerned. It requested all the prefectures and departments to make concerted efforts and to strive to achieve the goals set by the "Program."

The "Program" points out that based on the proposal for developing the breeding industry by the end of this century the potential for utilizing fodder resources and the economic and technical conditions for developing the fodder industry, realization of the general struggle objectives for fodder industry construction will proceed in two steps. Prior to 1990, the laying of a good foundation and the creation of necessary conditions are the major tasks; in the next decade, it is necessary to strengthen the system of the fodder industry to enable it to enter a new, vigorous era.

It is planned that by 1990, the proportion of compound and mixed fodder production to the gross production of concentrated fodder will rise from the present 10 percent to 40 to 50 percent. By 2000, the proportion will reach 70 to 80 percent.

The national processing capacity for compound and mixed fodder will reach around 50 million tons by 1990 and 100 million to 120 million tons by 2000.

12726
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NATIONAL

NEW MARKETS FOR COTTON SEEN IN JEANS, CORDUROY

Beijing ZHONGGUO XIANGZHENQIYE BAO in Chinese 2 Jan 85 p 2

[Article: "Pure Cotton Products Display a New Trend"]

[Text] There has been a great increase in the production of cotton in our country in the last few years. After the plentiful harvests in cotton, the responsible sections have increased their efforts to develop new products of pure cotton.

Pure cotton products have their unique superior qualities when compared with synthetic fabric. We should, therefore, consider their advantages in our work of developing pure cotton products. For instance, when we look at underwear and bedding, we know that people want comfort and cleanliness before asking for esthetic appeal in these things. We also know that the products of synthetic material cannot compare with pure cotton products in either comfort or cleanliness. At the same time, if we make pure cotton products more attractive, making changes in design and color, then cotton underwear will become both practical and attractive and will be even more popular with consumers. In addition, cotton pajamas are both light in weight and soft in quality, and they will become increasingly popular as the people's living standards rise and their lifestyle improves.

At the same time, we should also increase our efforts to develop new pure cotton products in order to find increased outlets for cotton. During the beginning of 1960's, the demand for cotton in the top producer of the world, the United States, fell drastically because of great development in synthetic fabrics. As a result, cotton jeans made of pure cotton were widely promoted and since that time, these jeans have become the most fashionable clothing for the young generation all over the world. Therefore, in our country, if we coordinate carefully the production and marketing of such products as summer toweling T-shirts, wax-printed clothing that is suitable for wear all year round, or corduroy jackets and jeans in different designs, then these products will appeal even more to the consuming masses. As a result, outlets for cotton will also be increased. In addition, we should also pay attention to the development of new products using both cotton and synthetic fabrics. These products will then have the qualities of comfort and cleanliness of pure cotton as well as the durability and attraction of synthetic fabric.

12740
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NATIONAL

PRC COTTON PRODUCTION SITUATION, PROBLEMS, TASKS ASSESSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 3, Mar 85 pp 18-21

[Article by Ma Jiazhang [7456 1367 3864] of the Cotton Institute of the Chinese Academy of Agricultural Sciences: "The Situation, Problems, and Tasks of China's Cotton Production"]

[Text] I. Situation

In 1984 China's total output of ginned cotton exceeded 1.2 trillion dan [24 billion kilograms], the highest in the world. The per-mu yield was over 100 jin, far higher than the average world yield and America's level, realizing the 20 year dream of being a country with ginned cotton yields of 100 jin per mu. Thoroughly turning around the previous situation of relying on large-scale imports of raw cotton, China has become more than self-sufficient, and with one leap has gone from being the world's largest importer of raw cotton (the largest amount imported in one year was 18 million dan) to being an exporter of raw cotton. The supply system limiting the sales of cotton cloth and cotton for wadding, in effect for almost 30 years, has been eliminated. The situation is heartening. But looking at it from another angle: according to current estimates of the consumption level, China's consumption of raw cotton is about 70 million dan. In this situation, cotton weaving mills, taking account of the requirements of the technical processes and the economic results, will by necessity choose as their raw material the cotton that they most need, that which is cheap and of good quality. Since the seller's market has become a buyer's market, no longer is it true that people will buy cotton no matter what it is like, and so a new situation has arisen: it is difficult to sell cotton and in the buying the price and grade are forced downward.

Starting with the 1984 procurement year, the state made some adjustments in the procurement policy, eliminating the added price for substandard ginned cotton. The procurement list price for one jin of the first grade of substandard cotton is about 0.38 yuan; the second grade of substandard cotton is about 0.15 yuan. Substandard cotton consists primarily of rotten and frost-damaged bolls. Calculating for a moment, the cost of picking, stripping, drying and other steps often exceeds the purchase price. Although rotten and frosted bolls are considered output, the greater their proportion,

the greater the real economic loss to the cotton farmers, and so they are a harmful output. Not merely is it without any benefits, it's an output that leads to an increase in loss of the inputs. According to studies, the production of every 100 jin of ginned cotton requires about 60 man-days. In areas where rice and cotton are both cultivated, because rice requires less labor--after transplanting the seedlings and spraying on herbicides, not much work remains--some cotton farmers would rather plant rice instead of cotton. If we only look at the planting side, the cotton yield per unit of inputs is far higher than for rice, but if we figure the labor input per unit of area, paddy rice is far lower than cotton. When the labor saved by planting rice is devoted to industrial or sideline production, the income will greatly surpass the income from growing cotton. If a good solution is not found, the further development of enterprises in villages and towns will cause peasants to show less and less enthusiasm for growing cotton.

Looking at the international situation, according to the predictions of Bowling, an economist for the American Cotton Association, the trend is that from now on throughout the world, following the development of chemical fibers, cotton's percentage of the total fiber consumption will continue to drop, but the absolute amount of cotton consumption will continue to rise. According to information issued by the World Cotton Advisory Council, the world's consumption of raw cotton has actually been increasing every year. In 1982-1983, it increased 2.6 percent over 1981-1982, and 1983-1984 increased 2.4 percent over 1982-1983. It is predicted that 1983-1984 consumption will be 4.6 percent greater than production, so there will be vast markets for the export of raw cotton.

The largest raw cotton exporting countries are the United States and the Soviet Union. In the past few years the Soviet Union has been exporting about 15 million dan, 25 to 34 percent of its total production. Its main market are the countries in Eastern Europe. The United States in the past few years has exported about 26 million dan, 42 to 82 percent of its total production. In 1983 both America and the Soviet Union greatly reduced production. This is an extremely favorable situation for China's export of surplus cotton. Furthermore, the largest importer of raw cotton in the world today is Japan, annually importing about 14 million dan. Whether in terms of geography or the friendly relations between the two countries, striving for the Japanese market benefits both countries. But this year the actual amount of our exports wasn't too high, only 4 million dan, most of it low-grade cotton. This problem requires a good solution.

II. Problems

In China's current production of raw cotton, some products are not welcomed in domestic cotton mills, and they also lack competitiveness in the international market. The central problem is that the inherent quality of the ginned cotton is inferior, particularly the strength of the fibers.

The main purpose of cotton production is to provide the raw material needed by cotton mills. In the past China emphasized yield as the goal of cotton breeding, neglecting the quality of the fibers; China emphasized the length

of fibers but neglected their strength. Therefore the cotton produced obviously cannot meet the composition requirements of cotton used in cotton mills (Table 1).

Table 1. Principal Technical Standards for Raw Cotton Demanded by China's Textile Industry, Required Staple Mix of Cotton Used, and Purity and Length of Purchased Raw Cotton.

纱文 (1) (S)	(2) 纱制	(3) 对原棉主要技术指标的要求					需要原棉 的总长度 (9)	原棉收购 的总长度 (10)
		(4) 长度 (毫米)	(5) 强度 (克)	(6) 细度 (微米)	(7) 断裂长度 (千米)	(8) 成熟度		
20(1) 中文纱	25	25	3.5—4	5300—5500	21	1.6	13	8.21
22(1) 中文纱	27	27	>3.5	5300—5500	23	1.6	48	29.49
24(1) 中文纱	29	29	>4	5300—5500	24	1.6	28	28.42
26(1) 中文纱	31	31	>4	5300—5500	24	1.6	8	3.17
28(1) 中文纱	33	33	>4	5300—5500	24	1.6		
	(16) 33及以上		>4.5	7000—7500		1.6	1	0.03
	(17) 5级棉						3	
	(18) (配棉用)							
	(19) 23及以上							13.68

(20) 1—3级皮棉

Key:

- | | |
|--|-----------------------------|
| 1. Yarn count (S) | 11. Medium count yarn |
| 2. Yarn variety | 12. Thin count yarn |
| 3. Technical standards required of raw cotton | 13. Thin count yarn |
| 4. Length (mm) | 14. Fine count yarn |
| 5. Strength (g) | 15. Cotton washed yarn |
| 6. Fineness (m/g) | 16. 33 and above |
| 7. Breaking/splitting length (1000 m) | 17. Grade 5 cotton |
| 8. Maturity factor | 18. Used to match cotton |
| 9. Staple mix of cotton used (%) | 19. 23 and above |
| 10. Staple condition of purchased raw cotton (%) | 20. Grade 1-3 ginned cotton |

From the data in Table 1, we can clearly see that at present, of the cotton used by China's cotton milling industry, 27-mm staple is predominant, making up almost half the amount of cotton used. But less than one-third of the raw cotton actually produced is 27 mm long. Most of the staple is 29 mm or longer. It is a great waste to cut up long fibers. In addition, the cotton mill industry requires strength above 4 grams, and a maturity factor of 1.6. Of the upland cotton varieties currently being promoted and the promising data from regional trials being conducted now, there are not in fact any varieties whose strength reaches or surpasses 4 grams, and very few reach a maturity factor of 1.6. Thus we see from the domestic fiber market that supply clearly does not match demand, causing the cost of cotton textiles to be high and the quality poor.

When the cotton varieties bred in China are compared with those from the United States, the USSR, and Egypt, we see there are many disparities in the technical standards for raw cotton (Table 2). It is not difficult to see from the comparative data displayed in Table 2 that the inability of raw cotton produced in China to compete with America and the Soviet Union in the international fiber market is principally due to the great disparity in strength; the maturity of some varieties is also poor. The prime cause of these disparities is the variety.

Table 2. Differences in the Inherent Raw Cotton Quality of Cotton Varieties Bred in China and Varieties from Several Major Cotton-Growing Countries

(1) 种	(2) 品 种	(3) 育成国家 (4) (克)	(5) 细 度 (米/克)	(6) 断裂长度 (千米)	(7) 主体长度 (毫米)	(8) 成熟度	(9) 备 注	
(10)	鲁棉1号 (12)	中国 24	4.4	5439	29.00	28.57	1.54	主要推广品种 (36)
陆 地 棉	86-1 (13)	中国 25	4.18	5784	18.2	28.86	1.57	主要抗病推广品种 (37)
	石1724 (14)	中国 26	4.89	5467	21.2	27.53	1.73	新育成品种 (38)
	(15) 爱字棉SJ-1	美国 27	4.4	6195	27.0	28.7		推广品种 (39)
	阿字棉310 (16)	美国 28	4.3	5494	23.0	29.2		推广品种 (40)
	岱字棉61 (17)	美国 29	4.4	5494	24	28.4		推广品种 (41)
	斯字棉825 (18)	美国 30	4.3	5494	23	28.5		推广品种 (42)
(19)	塔什干1号	苏联 31	4.18	6030	25.1	23.2		推广品种 (43)
(11)	新疆棉 (20)	中国 32	4.49	6288	37.21	34.37	1.74	推广品种 (44)
海 岛 棉	比马S-2 (21)	美国 33	4.9	6282	37.0	34.1		推广品种 (45)
	6022 (22)	苏联 34	4.5	6299	40.62	37.13	1.83	推广品种 (46)
	吉札75 (23)	埃及 35	4.6	6232	34.79	35.9		推广品种 (47)

Key:

- | | |
|---------------------------------------|---|
| 1. Type | 21. Bima S-2 |
| 2. Variety | 22. 6022 |
| 3. Country of development | 23. Jizha 75 |
| 4. Fiber strength (g) | 24. China |
| 5. Fineness (m/g) | 25. China |
| 6. Breaking/splitting length (1000 m) | 26. China |
| 7. Length of main component (mm) | 27. U.S. |
| 8. Maturity factor | 28. U.S. |
| 9. Notes | 29. U.S. |
| 10. Upland cotton | 30. U.S. |
| 11. Sea-island cotton | 31. USSR |
| 12. Lumian #1 | 32. China |
| 13. 86-1 | 33. U.S. |
| 14. Shi 1724 | 34. USSR |
| 15. Aizimian SJ-2 | 35. Egypt |
| 16. Kezimian 310 | 36. Principal recommended variety |
| 17. Daizimian 61 | 37. Principal disease-resistant recommended variety |
| 18. Sizimian 825 | 38. Newly developed variety |
| 19. Tashigan #1 | 39.-47. Recommended variety |
| 20. Xinhaimian | |

III. Tasks

Faced with the problems discussed above, if we wish to effectively turn around the situation, making the happy situations even happier and turning unhappy situations into happy ones, the tasks lying before us are:

1. We must maintain the stability of cotton growing policies. Although we cannot overlook the role of science and technology, we should clearly recognize that the main factor in the rapid development of cotton production since 1980 is the enormous enthusiasm among peasants for planting cotton generated by the present cotton growing policies. We can only encourage, not stifle, this enthusiasm, which is not at all easy to arouse. What cotton farmers fear the most is a change in policy. Of course, before the problem of raw cotton breaking into the international fiber market has found an ideal solution, it will be necessary to make some adjustments in the current cotton growing policies in order to avoid further overstocking of cotton. For example, adopting the systems of planning contracts for purchasing and reducing cotton acreage through government compensation, will give full guarantees to the fundamental interests of cotton farmers, as well as enabling the government to keep the initiative for the flexible development of cotton production.

2. We should quickly revise the current national cotton standards and reform the graded price differences in the cotton purchase price. The current "standards" consider only length; strength, the ginning quality, and so on have yet to be included among the official testing standards. This is a fundamental rejection of strength, and is both unscientific and unreasonable. In order to check strength, we must organize professional forces to develop fast, accurate, and convenient instruments for determining the strength of cotton fibers. The present graded price differences encourage more production of long-fiber cotton, and no or little production of the medium-length cotton fibers most needed by the textile industry. After revision the graded price differences should greatly raise the purchase price for 27-mm staple, narrowing the price differences between 27-mm raw cotton and that longer than 27 mm. The price will encourage and ensure greater production of the raw cotton most needed by the cotton textile industry.

3. We should do research in practical cultivation techniques with high economic results for high-quality cotton, and establish technical standards for the scientific planting of cotton. At present we are promoting on large areas the techniques of plastic-sheet mulching and transplanting seedlings raised under plastic sheets. These techniques shorten the growing period of the cotton, accelerate maturity, and greatly reduce the proportion of cotton which flowers after frost; this benefits the production of high-quality cotton. However, these techniques will also increase the number of rotten bolls, which in a different way affects the quality of the cotton. The use of growth regulators to control budding can concentrate the appearance of buds, the formation of bolls, and the opening of the bolls, thus reducing the number of rotten bolls and increasing the amount of quality cotton. But in places where the flowering period is rainy, whether or not it is a good idea to concentrate the flowering period is a question requiring further research.

4. We should adjust the breeding goals. High yield, high quality, and resistance (tolerance) to blight and verticillium wilt should be commonly considered as fundamental breeding goals. We should no longer follow the road of breeding for a single characteristic. Given this genetic background, we should actively create the conditions to develop breeding for multi-resistance. We should be breeding varieties with a comprehensively good set of characteristics. Most research results confirm that 84 to 95 percent of the ginned cotton yield is determined by the number of bolls per unit area. Therefore boll formation should be a major characteristic in shaping ginned cotton yield. The weight of the boll is not important; the best bolls are medium-sized. The number of seeds per boll plays an important role in shaping the yield.

As for the fiber quality, for new varieties of upland cotton the most common length is 27 to 29 mm, but it would be appropriate to carefully consider 31 mm fibers. The strength should be increased to 4 to 4.5 g--no lower than 4 g, and the tensile strength should be about 10 percent. The maturity factor should be 1.6 to 2, and the degree of regularity should be above 40 percent. The fineness of the fibers need only reach the medium level--5,800 m/g is satisfactory. New varieties must also be resistant (tolerant) to both blight and verticillium wilt.

5. We should change the breeding methods. The question now is how to use the path of genetic improvement to effectively combine the three fundamental breeding goals--high yield, high quality, and resistance (tolerance) to blight and verticillium wilt--into one variety. The results of genetic research have already told us that among these three characteristics there exists a very complicated genetic loading [yichuan fu di lianxi 6695 0278 6298 4104 5114 4762]. This loading is particularly apparent between high yield of ginned cotton and fiber strength, and resistance (tolerance) to blight and verticillium wilt and fiber strength.

There are two genetic possibilities for the mechanism of genetic loading. One is gene linkage, the other is the multiple effects of a gene. If the latter reason causes genetic loading, then at present there is still no way in genetic improvement to solve the problem. If the former reason is the cause and this linkage is very tight, the difficulty of solving this problem is also very great. The research of the majority of geneticists proves that the loading of the three fundamental breeding goals with many characteristics is primarily due to gene linkage. For a long time many breeders have already attempted to break the linkage and loading between high yield ginned cotton and fiber strength, and have attained notable results. Culp and his predecessor Harrel, working at the Pee Dee experimental station in Florence, South Carolina, have already bred a set of Pee Dee breeding lines that raise together the ginned cotton yield and fiber strength. They have also raised the r value, the number of relating ginned cotton yield and fiber strength, from $-0.93 + 4.5$ (insignificant).

We are presently combining Culp's experiences with our own and the research results of other scientists to seek out breeding methods which, having greater practical significance in cotton breeding, will break through the loading of genetic linkage, establishing a scientific breeding system. We believe that this task should be to solve China's present cotton production problems, continuing to tackle the key research questions which will develop the very good situation in cotton production.

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CSO: 4007/337

NATIONAL

RAISING TOBACCO QUALITY URGED

Beijing NONGMIN RIBAO in Chinese 7 Mar 85 p 1

[Article by Wang Enpei [3769 1869 3099] of the China Tobacco Co: "Comprehensively Improve the Quality of Leaf Tobacco"]

[Text] In the 35 years since the founding of the Peoples Republic of China, our tobacco production has developed very fast, with the production of flue-cured tobacco developing even faster. In the latter 1970's, our flue-cured tobacco's cultivated area, gross output and sales jumped to first place in the world. The successful and improved varieties of Bailei, Xiangliao and Malilan tobacco were imported from abroad and used on a large scale. Also, the historic method of sun and air curing of tobacco was again utilized.

In 1984, the area planted in flue-cured tobacco totaled 10.96 million mu, its gross output was 28 million dan and sales totaled over 27 million dan. Tobacco growers nationwide had an increase in income of more than 600 million yuan. The expanded production of flue-cured tobacco created conditions for improving cigarette production and the supply of commodities. Cigarette production for 1984 totaled 21.25 million cartons with sales of 20.13 million cartons resulting in the rarely seen situation during the last few years of both production and marketing thriving.

We should also consider that during the last few years there have been two large problems in China's tobacco production that have not been properly solved. The first is that production growth has not been steady. During the last 35 years, flue-cured tobacco production has undergone four upsurges and four declines, with a relapse occurring roughly every 10 years. Each rise and fall had a large effect on the cigarette industry, making tobacco production unable to turn around for 2 or 3 years and also striking a blow to the state plan. The second problem is the poor quality of tobacco leaf. This is manifested in unequitable relationships between different types, not having proper grade structure, chemical compositions not jointly suitable and the tobacco not being accepted by the international market. Currently, the supply of high- and medium-grade tobacco falls short of demand, limiting the production of high-quality cigarettes and good-selling products. The inferior-grade tobacco was unsalable, resulting in an overstock of over 10 million dan, it took up a good deal of funds, affected the normal circulation of funds and also kept the tobacco industry's economic benefits from rising. In addition, in tobacco

production there has been a tendency for many years to stress flue-cured tobacco and taking lightly curing tobacco by air- and sun-drying. In 1984, the amount of air- and sun-cured tobacco was only equal to one twenty-sixth of the amount of flue-cured tobacco purchased. The production of these two are not being coordinated.

There are many aspects to the reasons for the above problems, they involve management, policy and technology, but the most important is the one of not conducting business in accordance with the law of value. For a long time we have relied on administrative methods for managing tobacco production, and price has not fully played its role as an economic lever. There has only been one grade and one price with no varietal price differences, no regional price differences, no seasonal price differences and no price limits for good and bad tobacco. Instead, we adopted the method of the state having a monopoly for purchase and marketing, harvesting whatever is planted and the state purchasing whatever is produced. The difference in price levels is small, we can only practice superior prices for superior grades and not superior prices for superior quality, and we cannot use price fluctuations to regulate the market.

Now the standards for separating grades are closely related to quality, but there are still some problems. By separating grades of tobacco based on outward appearance and internal quality, not all the tobacco of one grade will be of the same quality, and their use value will not be the same due to the harvesting of different varieties, different soil conditions and different cultivation techniques. This difference is not reflected in the price, therefore, after a certain length of time tobacco growers will adopt the high-producing tobacco varieties for planting, use more water and fertilizer, use high-density planting and not top the tobacco in striving for high yields and output value per mu while not putting sufficient emphasis on quality and use value. This is one of the main factors causing the long-standing fluctuations in China's tobacco quality.

From now on, to steadily develop tobacco production and comprehensively raise quality, except for intervention that is necessary, we should rely on the relaxation of prices and carry out the policy of superior prices for superior quality and inferior prices for inferior quality. Through investigation and research, differences should be set for variety and quality prices, regional prices and seasonal prices. Based on market demands, we should open up competition, thereby promoting adjustment of tobacco types and coordination of the grade structure. Tobacco production should adhere to the principle of superior development. Its present overall arrangement of production is not totally reasonable, some planting is scattered, and some planting is being done in unsuitable areas, resulting in low-quality tobacco that is not welcomed by the factories. We should use administrative measures and price fluctuations in this situation to limit and gradually eliminate tobacco areas that produce poor quality while gradually strengthening the development of producing areas superior tobacco.

As for the purchasing problem, we should control the amount of funds in circulation to guarantee that things are conducted basically according to plan.

Also, based on market demands, we should allow a certain amount of price fluctuation, then after completing the ordered plans we can carry out market adjustment. In this way, we can maintain balance of the macroeconomy, obtain the best economic benefit, and promote coordination of the microeconomy so it will be advantageous to the state, local areas and tobacco growers.

12704

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NATIONAL

METHODS FOR IMPROVING TOBACCO QUALITY OUTLINED

Specific Measures Explained

Beijing NONGMIN RIBAO in Chinese 25 Feb 85 p 1

[Article: "Raise the Quality of Leaf Tobacco to a New Level, Arrange the Production of Flue-Cured Tobacco in Accordance with the State Plan"]

[Text] The leading cadre of the China Tobacco Corp recently expressed to this reporter his view on the quality problem of tobacco. The leading cadre stated, "Flue-cured tobacco is one of China's main cash crops, it is grown in 22 provinces and autonomous regions throughout China. In recent years it has made a large contribution in accumulating funds for state construction and bringing about prosperity for tobacco growers. According to statistics for 1984, due to an increase in high- and medium-grade tobacco and a reduction in green tobacco the income of tobacco growers nationwide increased by more than 600 million yuan. The entire industry realized an increase in its taxes and profits from 10.22 billion in 1983 to more than 10.8 billion in 1984.

The leading cadre also said: "China's production of flue-cured tobacco has reached the level of demand and has a slight surplus, but its quality and the need for cigarette production is still comparatively far behind in comparison to the production of flue-cured tobacco of advanced countries. This is particularly prominent in inadequate amounts of superior- and medium-grade tobacco and the overstocking of inferior- and low-grade tobacco. There is a large price difference for various qualities of tobacco. Based on the purchase price currently in effect, the difference between the highest grade and the lowest grade is more than 20 times, therefore, raising the quality of flue-cured tobacco has great significance in raising the income of tobacco growers, satisfying the needs of cigarette production and the accumulation of state revenue. For this reason future production of flue-cured tobacco must be planned with emphasis directed toward quality. The specific needs are as follows.

1) Planting must be arranged in strict accordance with the state plan. The state plan for 1985 calls for a gross output of 29 million dan of tobacco and purchase of 28 million dan. The state plan should be

implemented step by step down to the grassroots level. Tobacco purchasing units at the grassroots level should sign production and purchase contracts with tobacco growers and carry out planned production and planned purchase. 2) Go a step further in implementing the policy of superior price for superior quality. In order to encourage tobacco growers to produce and sell more good-quality tobacco the state has adjusted the price for various grades of tobacco. The prices for superior and medium grades have been raised while the prices for inferior-grade, low-grade and green tobacco were lowered. 3) Spread the use of improved varieties and standardize cultivation techniques. The variety is the internal factor that determines the tobacco's quality, in order to produce high-quality tobacco improved varieties must be planted. Improved varieties must be incorporated with improved methods and these methods are those that suit standardized cultivation techniques.

Commentary Urges Improving Quality

Beijing NONGMIN RIBAO in Chinese 25 Feb 85 p 1

[Commentary: "Producing More Good-Quality Tobacco Will Secure Several Benefits with a Single Action"]

[Text] Flue-cured tobacco is one of China's main cash crops. Raising the quality of tobacco would not only increase tobacco growers' income and accumulate funds for the state but would also be welcomed by consumers both at home and abroad.

During the last few years, due to the low output of high- and medium-grade tobacco there has been a critical shortage of A and B grade tobacco on the market, which has brought about a strong reaction from the vast numbers of consumers. The reason for this is that areas are concentrating on quantity alone and are ignoring quality.

To raise the quality of tobacco, we must start from production. At present, the tobacco planting season is upon us, and in order to ensure that the planned development of flue-cured tobacco production is in accordance with the demands of cigarette production, prior to planting, the tobacco purchasing units should, based on the quantity and quality needs, sign a production and purchasing contract with the tobacco growers at an early date. To ensure that tobacco quality is raised, in addition to actively spreading improved varieties, production management is also very important. The planting density should be appropriate, fertilizer should be applied rationally, topping and pruning should be done at the correct time, and it should be harvested and cured properly.

In order to encourage tobacco growers to produce and sell more good-quality tobacco, the policy of superior prices for superior quality should be implemented during purchase to really enable the tobacco growers to sell their good-quality tobacco at good prices. At the present time, we should expand the work of promoting tobacco growers doing a good job, explain the party and state policies concerning the development of flue-cured tobacco production and get rid of the fear of disturbing things in tobacco production. Provided every area does a good job in propaganda work, arranges the plan for flue-cured tobacco earlier and signs purchase contracts at an early date, then there will be good prospects for raising the quality of tobacco this year.

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NATIONAL

PROPOSALS GIVEN FOR COMPREHENSIVE USE OF CORN

Beijing NONGMIN RIBAO in Chinese 27 Feb 85 p 1

[Article: "Develop the Comprehensive Use of Corn As Soon As Possible; Proposals From Over 50 Corn Experts"]

[Text] Recently, at the National Conference for Scientific Research in Corn Cultivation over 50 of China's corn experts put forward proposals aimed at the problem of slow corn sales that China has experienced during the last few years. They called for developing the comprehensive use of new technology in corn and promotion of commodity transformation of corn.

After implementing the agricultural responsibility system, China's unit and overall corn yields had large-scale increases year after year, resulting in large surpluses and overstocking, but on the international market there were many countries competing for corn imports. In order to develop the fodder industry and have comprehensive utilization of corn the experts proposed the following:

1. Devote major efforts to developing the corn-mix feed industry. The price of corn used as feed is higher than that of barley, oats and sorghum, the monetary return compared to that of seed grain is 20 to 30 percent higher, and corn is also suitable for use in greenfeed and silage. It is known as "the king of feed crops." According to forecasts by concerned departments, by the year 2000, of the 960 billion jin of grain produced by China 250 to 300 billion jin will be used as feed in the livestock raising industry. It is also obvious that corn will be the main variety.
2. Develop a modern corn industry. Use corn in the manufacture of starch, corn oil and corn sugar. Cornstarch is very pure, of high quality and is widely used in the foodstuffs, textile, chemical and medical industries. At the present time, there are over 500 varieties of processed products that use cornstarch as a raw material. Corn oil is high in nutritional value and is used in high-quality products. If one-half of the corn China's countryside currently utilizes in processing were separated for oil extraction it would be equivalent to the soybean oil output from 23 million mu. The fructose content

of corn sugar is 70 to 90 percent, it is very sweet and has a good flavor. There must be both expansion of the cornstarch industry and planned production of corn sugar.

3. Develop the foodstuff industry, especially corn-based foods. After corn has been mixed with other foodstuffs and milled, lysine, eggs, milk, cocoa and other highly nutritional additives can be combined with it to produce corn-based convenience foods that have good color, fragrance, flavor and appearance, and are durable, easy to transport, suitable for both young and old, and also put emphasis on production in corn-producing areas.

4. Speed up the development of sweet corn. The areas that should be concentrated on for its production are the outskirts of large cities and tourist areas. The corn can be supplied as a raw vegetable, fresh food or used to expand canned and quick-frozen food exports.

5. Increase the scientific research on the comprehensive utilization of corn. Agriculture institutions should establish special fields of study in processing and utilization of agricultural products and train people in these areas. Agriculture scientific research units should expand research on processing techniques for corn and send personnel abroad to observe, study and gain experience from the success of others.

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NATIONAL

NEW 'MONTHLY TALK' COLUMN ON FARM DEVELOPMENT PROBLEMS BEGUN

Meeting Readers Requests

Beijing NONGYE JINGJI WENTI /PROBLEMS OF AGRICULTURAL ECONOMICS/ in Chinese No 1, 23 Jan 85 p 51

/Editor's Note/

/Text/ Editor's note: To meet the rural developmental situation which is full of vitality, and also to propose a realistic, creative, short and pithy writing style, raise the acceptance rate of articles that are submitted, and meet the requests of many readers and writers, this journal is beginning a new column, "Monthly Talks," in 1985. We enthusiastically welcome everyone to submit short pieces that have new ideas and substance.

Improving Agricultural Productivity

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 p 51

/Article by Ding Zeji /0002 3419 7221/ of the Agricultural Economics Institute of the Chinese Academy of Social Sciences: "We Must Emphasize Improving Farm Labor Productivity"/

/Text/ Looking at the world's agriculture, we can see that only nations with developed industry have modernized agriculture, and agriculture in economically backward countries is in a backward situation, with manual labor, and most of the population sealed off in scattered villages, a low level of culture and education, and agricultural products that often still have to be imported. These phenomena clearly show the general trend in progress of human society. Only when a considerable amount of the agricultural population has been shifted out of agriculture to engage in industry, commerce and various cultural, educational, scientific and technical activities can there be major social, economic and educational development.

To realize this general trend of progress, on the one hand, we must equip agriculture with industrial technology and raise agricultural productivity, and, on the other hand, only when we raise agricultural productivity will

we be able to shift the agricultural population into industry and only then will industry develop. These two aspects are a simultaneously advancing, long-term, economic developmental process. This is an economic developmental stage that cannot be leaped over.

With the reform of China's whole rural economic system, we can expect that the problem of raising agricultural productivity will receive more attention every day.

Comparing America to China, in America with 200 million people, only 3.7 million people, or 4 percent of the national population, engage in agricultural labor. In China, however, 80 percent of the population is busily engaged in producing food. American agriculture also has high economic results. For example, only 2 percent of the harvest is used as seed grain, and it only takes 5 jin of grain to produce 1 jin of meat, and so producing the same amount of grain can have even more uses and raise even more livestock. China's cultivated area and total grain yield are roughly the same as those of America, but not only does China have a large population, but our economic results are not high. Therefore, at the same time that we stress raising the area yield per unit, we must also stress raising agricultural productivity.

Because China has a large population and it rejects mechanization, we are unable to raise agricultural productivity. The history of foreign economic development also clearly shows that agricultural mechanization can reduce the amount of agricultural labor required, and industrial mechanization, then, can absorb even more labor, so only when industry and agriculture mechanize at the same time can we enable the agricultural population to transfer out. As for the defects of foreign agriculture mechanization, these are the results of the agricultural mechanization used by capitalism. If we are to mechanize, we cannot at the same time go the route of mechanization used by capitalism. These are two separate matters, and we cannot reject the use of mechanization simply because capitalism used agricultural machines. If we wish to maintain manual labor in agriculture for a long time, then we cannot raise productivity, and so there can be no social progress.

Scope of Food-Producing Sector

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 pp 51-52

/Article by Wu Zengfang /0702 1073 5364/, of the Agriculture Economics Department of China People's University: "Problems in China's Agricultural Development That Urgently Require Study and Solution"/

/Text/ In 1983, at an annual international academic conference that the writer attended in 1983 convened by the West German Agricultural Society Institute, a researcher from the Boan Agricultural Structure Institute found that viewed from the perspective of resource use and economic scale, the optimal scale of a West German family farm is 50 hectares. He

had no sooner finished speaking at the podium when he was immediately refuted by the conference chairman and agriculture department head from the state of Saxony. With a stern voice and countenance, this department head pointed out the severe unemployment problem that already existed in West German society, and said that agriculture was a good place to find work. If the scale of family farms continues to expand, then it would mean that excess rural family labor would surge into the cities, making the serious unemployment problem even more severe. He asserted that this plan would not do. Therefore, in modern industrial societies certain bourgeois politicians also rather sensibly adopt measures to moderate the polarization of the countryside and enable the economic scale of the family farm to be maintained within a socially permissible scope, preventing rural family labor from entering the cities and curbing the growth of the large army of unemployed. We can see from the above that the existence and development of small- and medium-sized family farms and the reason that family agricultural businesses will be able to endure for a long time are inseparable from their relative advantages of scale and from a certain social, political and economic foundation.

Through a comparison of domestic and foreign agricultural developmental processes and family farms, we can very easily raise major fundamental questions for ourselves, such as: Under China's present conditions, how many family farms, after all, need to engage in agricultural commodity production? How many rural families should engage both in agricultural commodity production and other commodity production? How many rural families should engage in rural village and small-town industrial, commercial and sideline production? These problems, in the end, address the problem of how many peasants really need to be involved in raising food. To this end, we absolutely must give our attention and thoroughly discuss and study these questions. After all, we are a socialist country with a planned economic system. The socialist system itself and its superior features objectively raise this major strategic problem of a fundamental nature that must--and can--be recognized, studied and solved.

After determining the number of Chinese agricultural households that are developing under the output-related family responsibility system and analyzing their structure and scale, we must still thoroughly study these major strategic problems: 1) the transfer and concentration of the right to use the means of agricultural production and their laws and regulations; 2) the problems of the development of rural and small-town industry and commerce and the distribution of processing enterprises for agricultural and sideline products; 3) the problem of the quality and level of rural family agriculture productive forces and of a comprehensive agricultural technology system; 4) the problem of a social service system before, during and after production for rural families; 5) the problem of developing the comprehensive utilization of resources in China's rural family economy; and 6) the problem of guaranteeing economic laws for agricultural development of the rural family output-related responsibility system, and so on.

Legal Status of Rural Enterprises

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 p 52

/Article by Chen Guohua /7115 0248 5478/ of the Changde Prefectural Party Committee Political Study Office: 'We Urgently Need To Establish the Status of 'Legal Person' for Rural and Small-Town Enterprises'/'

/Text/ The development of rural and small-town enterprises is one of the major ways to establish a socialist rural economy with Chinese characteristics. However, at present the social position of our rural and small-town enterprises is extremely low. The reasons are multiple: first, speaking from the ownership system, rural enterprises have a rural collective nature. In China, due to eating from the "large rice bowl" for a long time in the past, and also because of the unwritten hierarchies that naturally formed because of it, the countryside is not as good as the city, and the collectively owned is not as good as the nationally owned. And of course, village enterprises, in ownership, are at the very bottom, and even the rural and small-town collective enterprises are not as good as the others. Second, speaking of treatment, because of their special nature, rural and small-town enterprises are all "entered in a separate ledger" in the areas of production planning, supply of raw materials and the sales and marketing of products. Even if there are a few planning objectives, the concerned departments take deductions, so in the end, there is not much left.

The reason this sort of situation could occur is because currently, in social activities, rural and small-town enterprises still do not have the status of "legal persons," and their legal rights and interests still do not have effective protection. With the setting of a high tide of urban economic reform, rural and small-town enterprises will face a very vigorous challenge.

If this situation is not immediately reversed, the development of rural and small-town enterprise will have no opportunity to improve, and there will be no way to find out what its future prospects are. To that end, we have proposed the following suggestions:

1. All levels of party and government departments must give a high degree of attention to raising the social status of rural and small-town enterprises in public opinion. As enterprises, rural and small-town enterprises are social entities with various rights and duties, and they should also enjoy the same kind of social treatment as other enterprises, regardless of what kind of nature they have. We must fully recognize that the development of rural and small-town enterprises is a new path and effective route for establishing a rural socialist economy with Chinese characteristics and for speeding up the modernized construction of agriculture. Thereby, they would have a set status in all levels of party committees and government work departments, and this would allow all of society to gradually change their former impression of rural and small-town enterprises.

2. Reform the present administrative system, taking the local rural and small-town enterprise bureaus from being administered by rural work departments and putting them under various local economic committees to administer. When the scale is fairly large, large enterprises which hold the balance in the local economy can still be put directly under the administration of the local economic committees. Their production plans, material plans, etc. would all be treated the same as those of state and collective enterprises by the local economical committee, plant-level leadership would be democratically elected by the workers and staff or the economic committee would put out a notice of a vacancy to be filled, and appointment made after they were examined by the economic committee. Those appointed do not determine the number of rural households and total population, but they enjoy the same level of treatment as state enterprises and can hold a post at the same level as a state enterprise. The rural and small-town enterprises directly under the economic committee and the state and collective enterprises that are under its jurisdiction, in the same way, all have open work conferences, the same routes for inspection and appraisal through comparison, and commend and advance "honor rolls" of outstanding enterprises.

3. We must establish laws for the various rights, interests and duties of rural and small-town enterprises, and legally guarantee that their legal rights and interests will not be violated.

Integrated Industrial-Agricultural Development

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 pp 52-57

[Article by: Zhao Hongju /6392 3163 5282/ of the Chinese Rural and Small-Town Enterprise Supply and Marketing General: "The Dialectics of 'No Enrichment Without Industry'"]

[Text] "There is no stability without agriculture, no enrichment without industry and no vigor without commerce." Since the 3rd Plenum of the 11th CPC Central Committee, this saying has been the best description of our rural economy getting on the path of the overall development of farming, forestry, animal husbandry, sideline occupations and fishery and of the comprehensive management of agriculture, industry and commerce. Concise and comprehensive, it both confirms people's confidence and also has great leadership significance.

Some people say: that "no enrichment without industry" is correct, but "it is also possible to become rich without industry!" This point is very much worth our close attention. It is not a denial of the wording "no enrichment without industry," but means to say that we cannot be absolute, and cannot view the development of rural industry as the only path by which the broad peasant masses can diligently work to become rich. "No enrichment without industry" is relative, and has prerequisites. It is dialectic. Of course, in the past, we stressed the division of labor,

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or as was said, "It is an unalterable principle that peasants engage in agriculture, workers engage in industry." Peasants only sold unprocessed grain, raw cotton and various raw materials. But because the prices of agricultural products were irrational, there was suffering by the year's end, and not only did they not become rich, but the situation even made it difficult for them to continue production. When commune members realized that when agricultural products underwent processing their value increased several-fold or several dozen-fold, some communes and brigades used industry to supplement agriculture, and when it markedly increased commune members' income, they personally realized that there truly was "no enrichment without industry." This was very keenly felt.

Seen macroeconomically, we really can allow peasants to become rich, and this has widespread significance. speaking microeconomically, and specifically about certain people or certain matters, it is true that one can also become rich without industry, particularly the many specialized households that have appeared with the development of the rural commodity economy and which carry out commodity production. There are many kinds of 10,000-yuan households in the countryside; some raise grain, some raise dairy cattle, some raise poultry, some raise fish, some tend fruit orchards, some engage in "full dimension" agriculture, and some open up wilderness areas and plant trees; in addition, there are many 10,000-yuan households that engage in commercial management. They are all made up of peasants who have technical skills and strengths, or a head for economics, who understand the field of business and who have a certain economic base. When the marketplace opened up, they were able to become rich first, and most peasants still have not accomplished the same thing. This is both a general and a specific problem. However, if in order to become rich, someone does not take into account his own situation and local traditional advantages, and so abandons agriculture and shifts to engaging solely in industry, this would be a mistake, or at the very least would split up "no stability without agriculture, no enrichment without industry and no vigor without commerce," and lacks overall understanding. We definitely must pay attention to the fact that speaking from the point of view of the whole national or rural society, agriculture is the foundation of the national economy, and of course, it is the foundation of the rural economy, and only with this foundation can we talk of developing rural industry as the road to becoming rich, and then, correspondingly, developing the commerce and service industries of the state, collective and individual, enlivening the economy and the mutual relations and mutual advance of all three. Otherwise, in the end, becoming rich or becoming vigorous cannot be realized. Herein lies the critical meaning of overall management of agriculture, industry and commerce.

Redefining 'Peasant' Advocated

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 p 53

[Article by Tong Qingji /4547 1987 0679/ of Zhejiang Province's Qinhua Prefectural Party Committee's Department of Agriculture and Industry:
"We Should Correctly Utilize the Notion of 'Peasant'"]

/Text/ In backward agricultural countries, the concept of "peasant" is very clear, that is, it indicates a person who lives in the countryside, engages in agriculture production (including farming, forestry, animal husbandry, fishery and sideline occupation) and who relies on agricultural income as his primary source of livelihood.

After the 3rd Plenum of the 11th CPC Central Committee, very big changes occurred in China's rural industrial structure, and many "peasants" left the land and went to engage in rural and small-town enterprises, collected funds and started up plants, engaged in various specialized trades such as commerce, transportation, service industries and education. According to the results of a survey of 7,617 full- and part-time laborers from 4,029 households, the 3,304 people at home who engage solely in agriculture make up 43.4 percent of the total labor force, and the 4,128 who engage in industry, commerce and service make up 54.2 percent. At present, although most of these households farm at the same time, these families put the greatest part of their labor, funds and equipment into industry and commerce, and their income from these areas has also become their main source of livelihood, former sideline occupations have already become their main occupations, and agriculture has changed from their main occupation to a part-time occupation. Some households have even completely transferred their contract land to other people and now put all of their labor, funds and equipment into industry and commerce. From here on, this trend will continue to develop.

What should we call these "peasants" who have left the land and how should we handle statistics for them? I feel that we should handle things in line with the changed reality, that we should label people by their work, and that we should do statistics within the relevant sphere in order to make them reflect the changes in the population structure. The statistical system that China now uses distinguishes people without exception by the relation of their household to grain, so that one is either a worker or a peasant. It is also always talking about "800 million peasants producing food," which no longer agrees with the present occupational structure of the population, and so is unscientific. Now is the time for studying and solving this problem.

Importance of Lake Fishery

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 pp 53-54

/Article by Wu Wanfu /0702 8001 1133/ of the Fishery Economics Institute of the Chinese Aquatics Academy: "We Must Stress the Development of Lake Fishery"

/Text/ In recent years, China's freshwater fishery has developed very rapidly. And within it, fish raised in small-surface ponds have made especially great progress. Under current technological levels and social and economic conditions, it is undoubtedly correct to make refined breeding in small ponds the principal aspect of developing freshwater fishery.

However, with technological progress and changes in social and economic conditions, raising fish in lakes will certainly occupy a more and more important position. Starting now, it is very necessary and also quite possible to place the development of lake fishery on the agenda.

China has 111.38 million mu of lake surface, and under present technological conditions, there are 28.04 million mu where it is possible to raise fish. These figures are equal to 5.9-fold and 1.5-fold, respectively, of total pond area and the pond area in which it is possible to raise fish. The development and utilization of these lake resources are significant in many areas.

First, the development of lake fishery could provide a considerable amount and level of protein to the people. Seen from the 1983 production level, the average yield per mu for lake cultivation of fresh fish was 21.8 jin. If we were to fully utilize these 28.04 million mu of lakes that can be used for cultivation, calculating at 21.8 jin per mu, then the total yield could reach over 300,000 tons of fish. If we convert this to the 100 jin yield per mu for ponds, it would be equivalent to digging out 6 million mu of pond. According to the estimates of specialists, the natural production capacity of lakes in the middle and lower reaches of the Chang Jiang is between 30 to 50 jin per mu. If the natural production capacity of the lakes could be brought into full play, then there would be even greater potential for lake fishery. Because the production area for lake fishery is fairly concentrated and it has a high commodity rate, the development of lake fishery would have particular significance for alleviating the problem of "eating fish."

Second, the economic results of lake fishery are good. At present, our freshwater fish products come primarily from ponds. Pond cultivation requires the construction of ponds, the placement of fry and the casting of feed, so the costs are very high. But this is not so with lake fishery, where the fish depend mainly on natural feed for growth, and so one can save greatly on costs. At the same, many lakes can provide the means for a livelihood and a path for becoming rich for the residents of its banks.

And further, lake fishery has special ecological benefits. The broad expanse of water has great significance for regulating the weather, in increasing the amount of rainfall and guarding against soil erosion. Developing lake fishery can promote the comprehensive utilization of lakes and so arrive at the goal of beautifying the environment, protecting the ecological balance and improving the conditions of human life.

And yet for many years, we have not given sufficient recognition to lake fishery and so did not allow these resources to be fully utilized. Since the establishment of the People's Republic, the area of lakes that has been "filled in and reclaimed" has reached over 20 million mu, which is equivalent to 70 percent of the water surface that can currently be used to cultivate fish. Moreover, most of that lost through reclamation was coastline water area with dense water plants and abundant feed material, and so this severely damaged many breeding and fattening grounds for fish.

Added to which is the fact that the polluted quality of lake water and poor management of lake areas have created a state of chaos in fishery production, and fishery development has been very slow. We should draw sufficient attention to this.

Rural Judiciary Promoted

Beijing NONGYE JINGJI WENTI in Chinese No 1, 23 Jan 85 p 54

[Article by Shen Wenhui /3088 7186 6540/ of the Chinese Agricultural Economics and Law Study Committee: "Establish and Safeguard the Rural Legal System and Promote Development of the Rural Commodity Economy"]

[Text] Law is an integral part of the superstructure and its basic duty is to protect and promote the development of the economic foundation and to serve the economic foundation.

Civil law is law that regulates property relationships, Socialist commodity relationships must be much more complex than those in a natural economy, and because the respective economic goals and economic interests between economic entities are different, disputes and controversies inevitably occur. This, then, requires legal forms to settle economic relationships, clarify respective rights and responsibilities, and serve as the necessary norms that must be followed in economic activities.

For many years, China's legal backwardness was not scrutinized and recognized. And socialist legal work in the countryside was even more backward than in the cities: if rural legal work is unable to catch up with the needs of economic development and is unable to take those fixed and mature policies and use clear, unified, stable and strong legal standards to embody and guarantee their implementation, then it very possibly could again dampen the enthusiasm of peasants, which has already reached a high tide, and would probably stifle the rural economy which has already become brisk.

If we are to correctly apply legal methods to manage the rural economy, I feel that we should begin with the following areas:

1. Hasten the establishment of rural economic law, and set up a fairly complete system of rural economic laws and regulations.
2. Be good at using various forms of laws and regulations, and do a good job with rural economic work. Fully use the contract system in order to guarantee the realization of various responsibility systems and economic relationships.
3. Set up and perfect various legal organs for the rural economy, and give full play to their role as guarantors in economic work. In addition to enriching and strengthening judicial organs for public order, investigation, and statutory law, we must stress the role of notarizing

organs, legal advisors and other organs that provide legal services, and at the same time, we must strengthen the role of industrial and commercial administrative management, accounting, finance, banking and other organs in their leadership and supervisor function in the economy.

4. Energetically develop the dissemination of law and discipline and spread education concerning the legal system.

12452

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NATIONAL

EFFECT OF FUND ACCUMULATION ON RURAL CONSTRUCTION

Beijing NONGMIN RIBAO in Chinese 11 Mar 85 p 1

Commentary: "Learn How To Utilize Financial Means, Tap the Latent Potential of Rural Funds; Views on Organizing the Rural Construction Fund"

Text In the process of the countryside changing to a commodity economy, its need for funding has become increasingly urgent. Funding is an essential factor in economic development, only with a certain amount of funding can other essential factors be brought along and combined to form a real productive force. Therefore, cadres at all levels should learn how to utilize financial means and adopt correct policies and effective measures to truly solve the problem of an inadequate rural construction fund. This is an important link for further invigorating the rural economy.

In the funding needed for rural construction, we should adhere to the principle of stressing self-reliance. That is to say, the rural economy needs to rely mainly on itself to acquire funds. In order to further strengthen the agriculture base, it is necessary for the state to appropriately increase its financial investment in agriculture. But looking at the current state financial situation, we are already using a good deal of funds to support agriculture and we cannot take even more funds for its support. In addition, due to China's agricultural population being large and its original agriculture base being fairly weak, a very large amount of funds is needed for construction before the state's financial situation can make a basic turn for the better. Also, all the necessary funds for agriculture construction cannot be supplied. Therefore, at the current time and in the future we all must get a foothold in having the rural areas increase the raising of funds on their own.

The accumulation of funds is the most important source for agriculture to expand its reproduction, while the amount accumulated and how rapidly it is accumulated directly effect the scope and speed of expanded reproduction. For this reason, the relationship between accumulated funds and consumption must be handled correctly. In the last few years, because many rural areas were still addressing the issues of sufficient food and clothing, the proportion of funds used for subsistence has grown fairly fast; this is normal and as it should be. Now that the problem of having sufficient food and clothing is basically solved, we should, on the basis of developing production and with the condition of raising the living standard for the masses year to year,

appropriately control the growth of consumption and enlarge the proportion of funds that are accumulated. The task of developing various aspects of rural areas is very important; the increase in funds for consumption cannot always exceed the rate increase of accumulation. On the other hand, development that is detrimental to the rural economy is also detrimental to further improving the lives of the masses.

The fundamental way of enlarging the accumulation of funds in rural areas is to effectively collect and utilize various funds currently in rural areas, especially idle funds, and devote major efforts to developing commodity production. During the last few years, along with development of the rural economy and the increase in peasants' income there has also been a fairly large increase in unused funds scattered among collectives, enterprises, units and individual peasants. Fully tapping the hidden potential of these funds would play a large role in alleviating the problem of shortages in rural funds and speeding up development of the rural economy. To further invigorate the rural economy we should relax rural financial policies, adopt more flexible forms of credit and methods for accumulating funds, mobilize and organize unused funds in rural areas to the fullest extent possible causing the changing of scattered monies into a combined fund, natural resources into products, products into commodities, and causing commodity circulation to speed up, resulting in a good cycle for generating, collecting, using and regenerating money. This way, by developing commodity production we can go a step further in opening up accumulation of funds and satisfy the ever-increasing need of funds for development.

At the same time we are working hard to enlarge the accumulation of rural funds, we should also be raising its effective use. The best areas should be selected for investment; we should first develop those projects that require little investment, have short time periods and show fast results. Close attention must be paid to the market situation; products must be developed that suit the needs of the market and it must be guaranteed that our products on the market are competitive. A feasibility study should be conducted on each project to ensure that when a project is started it will be finished. In summary, in all areas we should have careful calculation and strict budgeting, practice strict economy, fight against waste and ensure that the use of the funds obtains the greatest possible economic benefit. So by doing a good job in the two aspects of "broadening sources of income" and "reducing expenditure," we can certainly solve the problem of insufficient funds for rural construction.

12704

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NATIONAL

COMPREHENSIVE DEVELOPMENT, INDUSTRIAL STRUCTURES IN RURAL AREAS

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese
No 2, 23 Feb 85 pp 25-26, 62

[Article by Lu Yinchu [7120 6892 0443] of Beijing Agricultural University]

[Text] I. Synthesis Is Creation

The growing synthesis of science and technology increasingly has become a primary trend since the 1940's. The birth of the agricultural sciences, environmental sciences, ecological sciences and other comprehensive sciences and the appearance of control theory, information theory, systems theory and other horizontal sciences is an indicator of scientific synthesis. Aviation technologies, electronic technologies, biotechnologies, energy technologies and so on are the crystallization of technical synthesis. Synthesis of science and technology led to the appearance of "demand" technologies, while the growth of "demand" technologies promoted further synthesis and transformation of science and technology. The manifestation of this characteristic in the realm of production is the strengthening of the process of socialization on the basis of specialization. The development of new industries with a division of labor and cooperation effectively promoted the so-called saturated growth in the economies of some countries during the 1960's and 1970's.

The trend toward scientific and technological synthesis also has achieved the same results in the sphere of agriculture. The development of world agriculture during this century clearly shows a stage of breakthroughs in single disciplines during the first 50 years and a stage of comprehensive development over the last 30 years. The invention and use of the tractor in 1907 initiated the process of agricultural mechanization. The successful industrial synthesis of ammonia in 1912, the later discovery of the effects of the insecticide DDT and invention of the herbicide 2,4-D, the breeding of dual hybrid techniques in the 1920's and 1930's initiated the development of varietal improvement. The many scientific and technical achievements over the past 30 years in combination greatly accelerated the process of agricultural scientific and technical system centered on inorganic technologies. The replacement of animal power with mechanical power in cultivation greatly improved labor productivity and created the technological basis for specialization of agricultural production and the shift of agricultural labor. It was accompanied by mechanization, intensive inputs of materials and energy,

especially inputs of chemical fertilizer, farm chemicals and improved varieties, which rapidly improved land productivity. Of course, there were hidden crises in this set of technical measures and the economic growth they engendered. The main shortcomings were high energy consumption and ecological degradation. The solution to these problems demanded a new synthesis on an even higher foundation. This led to a comprehensive technological structure of organic and inorganic technologies and the exploration and development of agro-industrial industry structures. The strategic idea in rural development is to emphasize biotechnologies and to pay greater attention to knowledge intensity and technology intensity as a substitute for the traditional labor intensity and capital intensity. Strive to obtain unity of economic, ecological and social results and improve the overall forces of production in agriculture.

The successful development of a synthesis of science, technology and production illustrates a truth--synthesis is a force of production and synthesis is creation.

II. Industrial Structures Are the Foundation

Agriculture is a synthesis, a highly complex open system. In the larger sense, agriculture in the macro perspective is composed of three primary aspects. The first is the agricultural economic system, which is linked with the entire national economy and carries out exchange of products and value. The second is the agricultural ecological system, which is related to the entire biosphere, and primarily involves the exchange of matter and energy between agricultural organisms and the environment. The third is the agricultural technological system. It is integrated into science and technology as a whole, makes comprehensive use of traditional agricultural technologies as well as modern science and technology, as explores the possibilities and prospects for utilization of newly emerging technologies in rural areas. Comprehensive rural development must be established on a three-dimensional network containing ecological structures, economic structures, industrial structures, energy resource structures, technical structures, administrative structures and so on. Structure is the foundation of function, structures determine functions. Only rational agricultural structures can guarantee the stable development of the forces of production in agriculture. The central link here is reform of industrial structures, which have three main levels:

The first level is the structure of cropping. Cropping has been developing in the direction of rationality since the 3d Plenum of the 11th CPC Central Committee and the proportion of cash crops has increased. Fodder crops are receiving attention in some farming districts. The proportion of cash crops and feed crops is very low, however. The proportion of cash crops should be increased further as grain output grows. This is especially true of forage crops. A bit more than 10 percent of total grain output by the state and peasant households in China is used for feed grains each year. Feed grains account for 20 to 30 percent of total annual grain output in some developed provinces and regions. If 10-plus to 20-plus percent of cultivated land is used for direct planting of feeds, the thermal energy and protein provided would be three, four or even more times higher than if planted in grain.

The second-level structure is the structure of agriculture, forestry and animal husbandry. There have been some readjustments in the structure of agriculture, forestry and animal husbandry in the past few years, but forestry and animal husbandry as a proportion of all agriculture and their rate of growth have not met the needs of developing production and life. Moreover, there are major regional differences and development is very uneven. Some 80 to 90 percent of the energy and protein required by the residents of China are supplied by cereal grains. We must further transform the food structure and increase the proportion of foods containing protein. Apart from improving the plant proteins in cereal grains and such, one effective route is development of the feed industry and increasing animal husbandry as a proportion of the structure of agriculture, forestry and animal husbandry. We must gradually increase the level of animal proteins.

The third-level structure is the establishment of an agro-industrial-commercial industrial structure. The traditional pattern of rural areas engaged in agriculture and cities engaged in industry already has been surpassed in some areas and the total value of output of rural and small town enterprises in rural areas has doubled in recent years. However, the farm products which spawn industry and the food products industry and the key links of conversion of grain into meat, eggs and milk, the feed industry and other processing industries that use farm and sideline products as raw materials still remain very weak, to the extent that they have never become the order of the day in some provinces and regions. The construction materials and energy resource industries still cannot meet the needs of rural development. We visited some rural and small town industries last year in some areas of Hunan and Jiangsu Provinces. The majority were traditional industries, with few industries using farm and sideline products as raw materials and few newly-emerging industries. The experiences gained in various places in developing a synthesis of agriculture, industry and commerce, however, show fully that without agriculture there is instability, that with commerce there is no dynamism, and that without industry there is no wealth. The embodiment of all three is products and the key is commodities. This experience has the essence of a law. We must begin by examining market demand, establish and develop rural and small town industries according to local conditions, and gradually establish an industrial structure that synthesizes agriculture, industry and commerce. This is the most dynamic level for establishing a rational industrial structure in rural areas.

The industrial structure of rural areas is a three-level open system, a system that follows trends in the regular changes arising from improvements in production levels and scientific and technical abilities. The establishment of a rational industrial structure benefits coordination and conversion between grain and cash crops, among agriculture, forestry and animal husbandry, among agriculture, industry and commerce, and among pre-agricultural departments, agricultural departments and post-agricultural departments, and it benefits increased stability and the overall functions of the system.

III. The Three Key Problems in Establishment of Industrial Structures in Rural Areas

The trend toward comprehensive development in rural areas is a very good one, but there are contradictions if one wishes to establish a rational comprehensive industrial structure in that, on the one hand, the potential for comprehensive development is very great, while on the other hand there are many restricting factors. In Yuanjiang County on the shores of Dongting Lake in Hunan Province is a village of abundant fish and rice. There is a great potential there for comprehensive development of the industrial structures of agriculture and industry, and they left a profound impression on us. The grain surplus in Yuanjiang County is not insignificant but is of moderate size, and there are difficulties in selling grain. The use of grain to develop the feed industry has in turn led to difficulties in selling feed and in buying hogs. The selling of feed and buying of hogs must be done through the back door and depend on relationships outside official channels. Yuanjiang produces ramie which it has sold historically to Shanghai, Tianjin and other areas for processing. It lacked the ability to do its own processing and now has set up some small-scale fiber spinning mills that cannot handle all of it. There were 200,000 dan of overstocked ramie in 1983. Yuanjiang abounds in citrus that matures one-half month early and is competitive on the Hong Kong and international markets. Production and sales are not integrated, however, and the producing units lose money, as do the selling units. It cannot be sold in the producing region and cannot be bought in purchasing regions. Fish from Dongting Lake are sold as far away as Beijing and Hong Kong, but the ability to guarantee freshness, store and process it is not sufficient. Fresh goods that are not fresh is a common problem. The products cannot freely become commodities and there are problems in obtaining payment for the value. Increased breeding of the products would lead to greater difficulties. The economic benefits of a natural resource advantage cannot be fully exploited. This shows that there not only is an urgent necessity but also a great potential to develop farm and sideline product processing industries and rural and small town industries. There are many real factors that restrict them, however. Three key problems must be solved to turn this situation around.

One is to expand decision-making rights over comprehensive development. The peasants have decision-making rights over planting their crops and even greater decision-making rights over the diversified economy. There are few decision-making rights over industry in rural areas, however. This is a question of understanding and is subject to restriction by traditional thinking. Some people feel that rural areas should only be involved in agriculture, that the peasants should only plant crops and that industry and processing industries are city affairs. There also are some system problems that concern equipment installation, materials, energy resources and perhaps even redistribution of administrative authority. There also are many real problems related to conditions that restrict capital, equipment, energy resources, communications, technology and other areas. For this reason, the establishment of rational industrial structures in rural areas requires that the fetters of tradition be broken, that there be system and policy readjustments, and that we really solve real problems.

The second is to make great efforts to develop the needed technologies. Rural technical systems should be suited to the changes and development of industrial structures in rural areas. We noticed in some of the agriculturally-developed regions of China in Hunan, Jiangsu and Zhejiang that technical extension systems for cropping (primarily large field crops) have been established to a relatively complete degree and that they are playing a positive role. Specialized technical forces for economic diversification are very weak, however, especially the lack of a feeling for "demand" technologies and personnel that appear as the results of societal demand. There are serious conditions of outdated knowledge and backward measures among technical personnel for grain crops. The comprehensive industrial structures of rural development require agricultural colleges and schools to break through traditional educational systems that are segmented according to discipline and train specialized personnel who have a firm grasp of fundamental theories and who can adapt to the development of "demand" technologies.

The third is to establish comprehensive energy resource structures. Besides system and personnel problems, a prominent problem that is restricting comprehensive rural development is the question of energy resources. This is a universal problem. It not only restricts the development of agricultural and rural-type industries but also influences the development of forestry and the return of organic matter to the fields. This necessitates comprehensive development of energy resources to form a multilayer and diverse energy resource shortages. 1) There should be substantial increases in the amount of mineral resources, which means increasing utilization rates. 2) There should be planned development of ecological energy resources. China has abundant renewable energy resources with major potential. The key is to develop large, medium and small-scale energy resource technology equipment based on hydropower so that it becomes a reliable path for solving the energy resource shortage in the primary agricultural regions of China. Agricultural regions of the southwest that have inadequate water resources but sufficient light should develop various forms of light resource utilization technologies. The four major windy zones can strive to develop wind energy power generation. 3) Effectively utilize biological energy resources and transform the situation of more than 200 million persons cooking with wood and straw. We should increase the efficiency of methane technology, create fuel forests and develop new energy resource plant cultivation and utilization technologies.

As the reforms intensify, we must promote improvement of all the forces of production in the rural areas of China and accelerate the progress of agricultural modernization.

12539

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NATIONAL

TECHNOLOGY URGED FOR RURAL, SMALL TOWN ENTERPRISES

Beijing ZHONGGUO XIANGZHENQIYE BAO in Chinese 12 Jan 85 p 2

[Article by Zhao Rulin [6392 3067 7207] and He Junwei [6320 6511 0251] of the Rural Enterprises Section of the Bureau of Agriculture, Animal Husbandry and Fisheries: "Government Urges Reliance on Science and Technology in Developing Rural and Small Town Enterprises"]

[Text] The great effect of science and technology on production is being acknowledged by ever-increasing numbers of people; therefore, if we want to continue the development of production in order to increase economic returns, then we must pay great attention to science and technology.

At the moment, there is a disparity when we compare the situation of our rural and small town enterprises with the economic reforms in our cities and also with the new technological revolution in the world. We will see that our rural and small town enterprises use outdated equipment that has usually been passed down from the centrally-controlled industries, equipment that is usually high in resource consumption and low in production efficiency. Moreover, among the people employed in this sector, there is also a lack of trained personnel since we know from statistics that only 9 out of 10,000 have any engineering training and most of the others have only junior high school education; consequently these people are not open to new ideas or new ways of management. This situation must be changed following the changes in S&T, when more efficient new machinery will help lower production costs, leading to increased outlets for products as well as a lowered rate of environmental pollution.

The practice of relying on S&T to further develop rural and small town enterprises is now being carried out all over the world. For example, even during economically depressed times, corporations in the United States have continued to increase their expenditures for scientific research. At the moment, the total value in this category in the United States has already exceeded budgetary outlays. In China, both party and government have begun to pay great attention to the development of rural and small enterprises and have allocated a certain amount of investment to this area. However, because China's overall economy has to be developed in an overall way with different sectors requiring state funding, the total investment resources of our central government are in a more difficult state. Under these circumstances, the reliance on S&T to develop rural and small town enterprises must be carried out on a path that is in accordance with China's practical situation.

First, there should be contact and cooperation with the scientific research institutes and the advanced technical colleges. This is because in these technical colleges, there are usually rich resources in both knowledge and information for both planning and research. The rural and small town enterprises, on the other hand, have greater autonomy as well as certain funding allocations, where the goal is to turn productive forces from the field of research into marketable products. In our country at the moment, long-term cooperative ventures have already been established between some of the rural and small town enterprises with some of the scientific research institutes and the advanced technical colleges. As a result, the established procedures of scientific research, experimentation and production have resulted in obvious economic benefits. An example is the technical changes that have been made in 6300 kV electric furnace that have been hailed by scientists as the "first important breakthrough in the history of Chinese electricity." This was the important result of cooperation between the rural and small town enterprises of Tianjin and scientific research units. Because of the technical changes, the resultant rate of consumption is not far from the corresponding advanced world standard. Another example can be seen in the result of the cooperation between the rural and small town enterprises of Wuxi Prefecture in Jiangsu Province and Fudan University in Shanghai. Two new kinds of lighting devices were invented that consume 70 percent less electricity than the normal fluorescent lighting while at the same time yield a much brighter light. These new lighting devices have, therefore, become very popular with consumers. There have also been many other cases that show that cooperative ventures will eventually energize and lead rural and small town enterprises to new development.

Second, there should also be technological cooperation and joint-capital management between the rural and small town enterprises and the industries managed by the central government. This is because technological cooperation and joint-capital management among enterprises of different provinces will yield results that are just as important as the effects of the cooperation of rural and small town enterprises with technical colleges and scientific research institutes. At the moment in the three large cities of Beijing, Tianjin and Shanghai, more than 60 percent of the total production value of rural and small town enterprises is derived from cooperative management between main industries in the cities and subsidiary rural and small town enterprises. These enterprises have, therefore, been able to advance their technological development and standards as well as their level of management through the practice of cooperative ventures and management.

Third, there should both be the introduction of advanced technology from abroad as well as foreign economic and technological cooperation. Such practices as the introduction of technological changes, joint-capital management, the renting of machinery and new products and samples should be brought in from abroad. As a result, within a short time, the rural and small town enterprises will be able to obtain capital funding for their production and technological machinery, and there will also be productivity in handicrafts as well as the production of new products. Then the rural and small town enterprises will be included among the most productive sectors in China. An example can be seen in the case of

Ronghung Village near Changzhou City in Jiangsu Province. The machinery for producing plastic woven bags had been imported from Japan. As a result, the production of these bags by the enterprises in that village now number 13 million annually, with a total value of over 21.3 million yuan. These bags are now being sold competitively to 16 other countries and regions.

Fourth, different technical personnel (including management personnel) should be introduced and trained for rural and small town enterprises. There is a number of ways to bring in capable people, such as asking the specialized people in society to be in charge of the technology in these enterprises, or having consultants on either a short-term paid or invited basis. At the same time, we should also pay attention to the training of our own technical people within the enterprises, which can be done by establishing training classes. These classes can be organized by the advanced technical colleges, certain specialists, or through the joint organization of the departments that manage the rural and small town enterprises, or by the concerned enterprises themselves. According to reported statistics of 1983, more than 1.6 million cadres and workers throughout China have had special training.

Now that reform of China's overall economic system has progressed to a considerable degree, the development of rural and small town enterprises through S&T has already become an urgent issue. Therefore, the various sectors that are in charge of these enterprises, or such enterprises that are in the process of development or are about to progress to the developmental stage should make this their highest priority.

12740

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NATIONAL

CALCULATION OF RURAL SOCIAL GROSS OUTPUT VALUE REVISED

Harbin HEILONGJIANG RIBAO in Chinese 12 Jan 85 p 2

[Article: "State Council Approves and Transmits the State Statistics Bureau's Information Report on Calculating the Rural Social Gross Output Value; Village (and Brigade)-Run Industries To Be Included Under Industry Instead of Agriculture"]

[Text] From 1984 on, two reform items will be implemented in our nation's rural statistical work: in calculating the rural social gross output value, village (and brigade)-run industries output value, which was once included in agriculture, will be calculated under industry, as was advocated by the State Statistics Bureau in submitting the "Information Report on Calculating the Rural Social Gross Output Value: Village (and Brigade)-Run Industries To Be Included in Industry Instead of Agriculture" to the State Council. Recently, the State Council approved and transmitted this report to the nation and issued a circular pointing out that in order to reflect the process and achievement of the restructuring of the rural economic system and to completely master and study the trends of rural economic development, it is necessary to properly calculate the rural social gross output value. Furthermore, in order to reflect accurately the changing conditions of the rural economic structure at various stages, it is necessary to include the village (and brigade)-run industries in industry instead of agriculture as in the past. The agricultural gross output value is a significant component of the rural social gross output value. In studying the related economic issues, these two indexes should be calculated simultaneously.

In the report recommended by the State Statistics Bureau to the State Council, overall suggestions on the implementation of these two reform items and the method for calculating the indexes were pointed out. Concerning the limits for calculating the rural social gross output value, three areas should be covered:

1. Gross output value of agricultural includes the agricultural output value of all state-owned, collectively-owned, and individually-owned enterprises.

2. Rural industrial gross output value includes industries originally run by communes, production brigades and production teams industries operated by township and village cooperative economic organizations since the separation of state and commune; the recently developed cooperative industries operated jointly by some cooperative members in rural areas; and other forms of cooperative industry and individual rural industries.

3. The gross output value of the construction industry, transport and shipping industry, commerce and public beverages industry of the rural areas should be included.

Concerning the boundary between rural industry and agriculture, the report stated that in actual rural production activities it is impossible to draw a very clear boundary between industry and agriculture in certain areas. Under such circumstances, those rural industries (rural and small town industries and rural individual industries) that can be calculated and included in industrial gross output value should meet the following conditions:

1. The production organization, site, facilities and staff and workers engaging in industrial production should be stable (or relatively stable).

2. The industrial production activity should be carried out year-round; the operational period of the seasonal industrial production activities should be over 3 months in a year.

3. A rural or small town industry should be an independent accounting unit or a non-independent accounting unit that has an individual account which is separable from agriculture and other production endeavors. It also covers all rural individual industries that carry out their own accounting.

4. A business license should be obtained from the local industrial and commercial administration and management department.

In order to be included in rural industrial gross output value, the four conditions mentioned above should be met. Some units, whose major activity is agriculture but which carry out some industrial production activities during a certain period of time, should, on the basis of their primary activity, be included in gross output value of agriculture.

12726

CSO: 4007/245

MACROECONOMIC REGULATION OF FARM PRODUCT CIRCULATION

Beijing JINGJIXUE ZHOUBAO [ECONOMICS WEEKLY] in Chinese 17 Mar 85 p 11

[Article by Zhu Weiwen [2612 4885 2429]: "On Macroeconomic Regulation of Farm Product Circulation"]

[Text] I. The Trend of Rural Economic Development in Recent Years Raises New Demands

1. Gross agricultural output values and major product yields are increasing rapidly. Calculated based on fixed prices, there was a 46.3 percent increase in 1983 over 1978, an average annual rise of 7.9 percent. Grain has increased by 4.9 percent, cotton has increased by 16.4 percent, oil crops have risen by 15.1 percent and sugar, fruit, tea and silkworm cocoons have all experienced large-scale production increases. The development of rural production has demonstrated that the state of Chinese agricultural production is in the midst of a fundamental change.

The growth of the national economy and the people's livelihood, primarily in terms of the quantity of farm produce and commodities, has exceeded the growth rate required by current markets. Grain output increased by 27.1 percent in 1983 over 1978, an average annual rise of 4.9 percent, making for per capita grain holdings of 759 jin. The percentage of marketable products has increased from about 20 percent in 1978 to 31.7 percent in 1983, and in the grain market the excess of supply over demand amounts to approximately 15 percent of commodity supplies. In 1984 the percentage of marketable products will surpass 32 percent. There is a trend away from "direct" grain consumption and toward a new phase of "converted" consumption. Cotton supplies in 1983 were double those of 1978 and the percentage of marketable products in this commodity reached 98.8 percent. Production has outstripped the current growth of the textile industry. For edible vegetable oil the percentage of marketable products is 66.5 percent; for sugar crops it is 90.1 percent, with production exceeding sales; for tea it is 95.9 percent, and the quantity marketed retail added to the quantity exported accounts for 80 percent of the total; for flue-cured tobacco it is 95.9 percent, with demand basically constant. For the major farm products the situation has changed from a long-term inadequacy of supplies to meet demands that has existed in the past to varying degrees of "low-level relative surplus."

2. The composition of agricultural production and operation is gradually tending toward specialized and comprehensive development and the unitary production economy is becoming a diversified agricultural, forestry, animal husbandry, sidelines and fishery economy. In 1978 cultivation represented 67.8 percent of the gross value of agricultural output, and grain production comprised 76.7 percent of all cultivation. The diversified economy accounted for 32.2 percent of the gross value of agricultural output. In the past 5 years a change has begun to appear in the internal composition of agriculture. In 1983 cultivation had declined to 62.1 percent and the diversified economy had risen to 37.9 percent of the gross value of agricultural output. In areas with a developed commodity economy the diversified economy accounts for more than half of the gross value of agricultural output. Cultivation and animal husbandry enterprises are becoming concentrated in the hands of operational experts and crops are being shifted to the regions for which they are most suited, gradually becoming specialized. The five provinces of Hebei, Shandong, Henan, Jiangsu and Hubei produce 78.9 percent of the cotton in China. Commodity grain base counties are also on the increase and play a great role in ensuring and promoting comprehensive development throughout the rural commodity economy.

The development of production and the changes that have occurred in the composition of rural industry are nevertheless based on a self-sufficient and partially self-sufficient economic structure and are not at all coordinated with the growth of commodity production and social needs. Low level surpluses of grain have appeared so that conversion cannot keep pace. The relative proportions of the various industries within the rural sector are inequitable: the proportions of forestry, animal husbandry and fishery are very small, and animal husbandry has developed especially slowly. Industrial composition and distribution are inequitable and foodstuffs and fodder processing industries have not developed rapidly. The rural circulation system (particularly the procurement system) and the pricing administration system have fallen behind the state of rural economic development so that some price parities between farm products are very inequitable. Expanded reproduction capital in agriculture is tight or lacking and the idle money in society has not yet been fully utilized. There is a vast surplus in the rural labor force and natural resources have not yet been fully opened up. The profits from the produce of township-run cultivation enterprises are not as high as those from other industries and sidelines. Production development and industrial composition are not suited to market needs, but production potential has still not been transformed into real productive forces.

The new state of growth in rural commodity production has placed a series of new demands on circulation. We must make major adjustments in procurement, processing, storage, marketing and pricing, as well as in funding comprehension, technical interchange and labor utilization. Only then can we spur rationality in rural economic composition.

II. Open Up Agricultural Produce Markets, Apply Pricing Leverage and Spur Rationality in Rural Industrial Composition

We must open up farm produce pricing and implement market regulation under the guidance of the state plan. This is the primary means for enlivening

the microeconomy and improving macroeconomic results. Right now the emphasis should be on opening up markets and pricing.

1. Elimination of the state monopoly and assigned procurement system is the second major change after the enactment of the household contractual output responsibility system in the countryside. The state monopoly and assigned procurement system was formed under certain historical conditions and it played a positive role in ensuring supply and stabilizing prices. However, in the wake of the restructuring of the state's economic system and the growth of commodity production, abuse of this system became daily more prominent. Principally, the relationship between commodity production and market needs was severed and the regulatory role of the law of value could not be consciously applied. This affected rational regulation of rural industrial composition and development of the superior features of different regions, and it also was an obstacle to equitable circulation and improvement of the quality of agricultural produce. If we eliminate state monopoly and assigned procurement we can impel agricultural production toward the market, suit commodity needs and suit the demands of growth in the commodity economy to change industrial composition. This inevitably will further free rural productive forces and spur on rural commodity production to change direction and move toward a new developmental phase.

2. Open up farm produce pricing. If we eliminate state monopoly and assigned procurement, the state will no longer set prices centrally, farmers will arrange production based on market needs and products will be freely marketed and traded. Through market regulation not only can farm products fully reflect exchanges of equal value, but there will be a better linkage between farmers' production and market needs.

3. Implementation of equitable price parities between the various kinds of farm products is the major means for rational adjustment of the product mix and for impelling commodity production to suit market needs. The major problems facing us are as follows: first of all, grain profits are much lower than the profits from cash crops. According to a Zhejiang survey, the average net income from paddy between 1979 and 1982 was 63.81 yuan per mu, whereas it was 104.87 yuan per mu for cotton, 106.1 yuan per mu for sugarcane and 143.7 yuan per mu for silkworm cocoons. Secondly, the price parities between livestock and grain products are inequitable. Taking swine as an example, according to a Heilongjiang survey the price parity between live swine and corn was 1:8.2 in 1961 and 1:4.96 in 1984. That is, 1 jin of pork could be exchanged for not quite 5 jin of corn, so selling swine was not as good as selling grain. This is no help to the grain conversion effort or to the development of animal husbandry. Thirdly, the price parities between cultivation and animal husbandry on the one hand and other industries and sidelines on the other hand are inequitable. This has brought about a change in direction for funding and labor investment, toward township industries and small household industries. Moreover, the composition of township industry is not coordinated with social needs, and farm and sideline product processing industries have not developed rapidly. For this reason, our guiding principle must be the average rate of profit on investment. We must adjust farm product price parities and spur on coordinated development of composition in the various industries and products.

III. Wield Tax and Credit Leverage and Regulate the Rural Economy

1. Tax leverage: Through taxation we can adjust burdens, impel production to meet the needs of society, and restrict blind production. Now agricultural taxes are levied based on land yields in a normal year calculated in terms of grain. This is a tax system suited to monocultural grain production. Tax amounts have not changed for a long time and have not adapted to the growth of rural commodity production. Income from grain cultivation is inferior to that from the cultivation of cash crops and it is vastly inferior to the use of grain land for raising pond fish (calculate the tax levy on pond fish in terms of grain). This is detrimental to efforts to rationally adjust the internal composition of cultivation industries. If we change taxes paid in kind to taxes paid in currency and implement an agricultural land tax (calculating the tax levy based on the quota classification of the land area contracted for cultivation) and a farm produce tax (determining various tax levy rates based on the net output values or profits of different products), this would be helpful in regulating production and rationally adjusting the product mix. Therefore, we must unify pricing and use different types and rates of taxation or tax reductions and exemptions to regulate the rural economy.

2. Credit leverage: Credit leverage is primarily guidance of production and regulation of consumption through the extension of credit and through interest rates. In the past few years agricultural credit has been extended primarily for grain production, and the proportion granted for animal husbandry and other diversified economic projects has been meager. We must apply credit leverage and rationally invest in agricultural credit. The production cycle in animal husbandry enterprises is lengthy; credit should be granted in the season necessary and the repayment period should be reasonably extended.

3. Price subsidies: We should implement appropriate price subsidies for the major agricultural products. The adoption of appropriate price subsidies for the major farm products closely associated with the peoples' livelihood is another means of leverage for macroeconomic regulation. The implementation of protective procurement policies and the institution of farmers' subsidies simultaneous with the adoption of contract quotas for grain, cotton and other major farm products can bring about compensation for farmers' labor consumption costs, safeguard and arouse production initiative and help to spur a change in agricultural composition. Of course, the scale and amount of price subsidization cannot be as overly broad and great as in the past, nor should it be allowed to grow unchecked.

IV. Enhance State Macroeconomic Control Over Farm Produce Markets, Invigorate the Market and Promote Rural Economic Prosperity

1. We must eliminate directive planning and implement guided planning. By signing contracts with farmers we integrate farmers' independent operations with the state plan and bring about a better linkage between production and market needs. First, we should implement contract quota plans for grain, cotton and the other high volume farm products, and other products

should be marketed freely. Products under contract quotas should be procured based on preferential prices. Taking grain as an example, the state might order over 150 billion jin of trade grain and calculate the price based on the "inverse 3:7 ratio" (that is, 30 percent based on the original state monopoly procurement price and 70 percent based on the original overage price). The portion produced in excess of the contract should bear market prices and price fluctuations. In order to protect farmers' interests, when market prices are lower than state monopoly procurement prices, the state should make purchases based on the latter. Second, we should consider the major fresh and live commodities, such as swine and vegetables. The state should set aside a portion of fodder grain and supply it to specialized households and livestock-rearing households at favorable prices, signing procurement quota contracts with them. Third, with respect to scattered local sideline products and products extraneous to the quota procurement contracts, the state should consult with the producers concerning quantities, negotiate a price and make purchases through the marketplace.

2. We must establish reasonable commodity reserves. In a multi-channel economy state-operated commerce must still play a leading role. Production and circulation of agricultural products is characterized by regionality, scattered distribution and seasonality. After market regulation is put into effect we must carefully arrange for adjustments of surpluses and deficiencies among production and marketing regions and between slack seasons and peak seasons. The state commercial enterprises must maintain commodity reserves in a certain quantity based on the situation at the source of supplies and on market needs. When market supplies exceed demand and prices fall, the state should adopt appropriate protective prices for procurement. When market supply falls short of demand and prices rise, the state should adopt prices lower than market prices and sell goods in large quantities. By regulating quantities handled and curbing commodity prices they should do a good job of handling supplies.

3. We must take control of reasonable market pricing levels. The price system reform facing us is primarily the institution of structural price regulation. It adopts a combination of relaxation and regulation. Relaxation refers to the change of the pricing administration system for state price-setting on farm products outside of procurement quotas. Regulation refers to regulation of buying and selling price levels and the reasonable arrangement of price parity relationships among farm products. To take control of reasonable market pricing levels we must look both ahead and behind and consider the overall situation. First we must help the development of production and spur on the grain conversion; second we must adapt to the purchasing power of consumers and the changes in consumption composition; third we must consider how changes in rural industrial composition affect the production of various agricultural products; and fourth, we must encourage and protect the production initiative in grain bases, as well as the changes that may come about in other product prices after the adoption of grain contract procurement quotas.

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NATIONAL

RURAL INDUSTRIALIZATION, DEAGRICULTURALIZATION DISCUSSED

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[Article by Shen Liren [3088 4539 0086] of the Chinese Academy of Social Sciences Economic Research Institute: "On the Question of Rural Industrialization During Readjustment of Industrial Structures in Rural Areas"]

[Text] I. An Inevitable Trend of Economic Development in Rural Areas

After systems for contractual responsibility for output quotas are stabilized and further improved and agricultural production has developed and improved further, what direction should the rural economy take? During the process of the gradual transition of the rural economy from a self-sufficient and semi-self-sufficient traditional economy to a modernized commodity economy, what readjustments should be made in the economic structures and industrial structures of rural areas? This is a problem we are facing that awaits a solution.

Agriculture is the foundation. The conditions for the division of labor in agriculture and in society are created only through continual improvements in agricultural labor productivity and the associated percentage of marketed products. This is true for all the major instances of a division of labor and of activity throughout history. After the separation of agriculture and industry, tertiary industries continue to divide and grow. Like primary and secondary industries (mainly agriculture and industry), they have a prerequisite of continual increases in labor productivity and the shifting out of labor power.

As a developing socialist nation, China now is in the midst of this process. This process came relatively late in the past, however, and has progressed slowly. The objective cause is extremely low forces of production. The subjective cause is the inadequacy of our knowledge. In the final analysis, it is the perspective of the natural economy, not the commodity economy, that has obstructed our line of vision. The establishment of rural cooperatives and people's communes originally should have been accompanied by a movement toward a commodity economy. Quite the opposite, however, it took the route toward a more natural economy. Within the communes,

agriculture, industry and commerce had to study the military. This was implemented down to the production teams, with every family and every person engaged in farming and raising one or two pigs and a few poultry. "Neglecting agriculture to engage in commerce and neglecting agriculture to engage in industry" were things that had to be criticized. Although they ran a few industries and a little commerce, they had to adhere without exception to the principle of the "three locals" (getting materials, producing and selling locally). This led to a situation where "800 million peasants were raising food to eat" and where no breakthroughs occurred after more than 20 years.

Now, systems of contractual responsibility for output quotas have liberated the forces of production and broken down old patterns. Readjustment of industrial structures in rural areas is unavoidable. The general direction of readjustment is to encourage further deagrulturization [fei nongyehua 7236 6593 2814 0553] of the rural economy on the basis of readjustment of the internal structure of the agricultural economy and further strengthening of the foundation of agriculture through intensification and modernization of agricultural administration. This often is broken down into several levels. The first level is cropping, which includes grain crops and cash crops. The second level is agriculture in the narrow sense, forestry animal husbandry, sideline production and fisheries. The third level is agriculture, industry and commerce and may also include transportation and construction. Moreover, there also are agro-industrial-commercial activities, education, public health, science and technology, and other activities. In terms of their qualities, they can be divided into two groups. One group is agriculture, forestry, animal husbandry and fisheries. The other group is industry, commerce and services. The first group is agricultural while the second is non-agricultural. The two are different in that the first group undergoes a continual reduction of labor power during the process of development, while there is a continual increase in labor power in the latter. Readjustment of the economic structure of rural areas, therefore, is manifested primarily in the gradual transition of agricultural labor power into non-agricultural activities.

This will be a major breakthrough. If we can say that systems of output related contractual responsibility were a breakthrough from the "big and public" commune rural economic system, then the trend toward "deagrulturization" is a breakthrough in the rural economic structure of "800 million peasants growing food to eat."

The deagrulturization of the rural economy is founded on further strengthening of agriculture itself. This is an historical trend of a division of labor and activities and is common throughout the world. Some background information supplied by the World Bank when it was considering the Chinese economy showed that many of the developing countries of Asia originally placed their hopes on solving rural problems through the "green revolution." It was discovered later that the corresponding growth of the rural population made the deagrulturization of the rural economy even more important. In almost all nations and regions, at least one-fifth or more of the rural labor force was engaged primarily in non-agricultural production

activities. If the amount of labor engaged in seasonal or temporary labor in medium and small towns is included, the figure was 35 to 65 percent. A sample survey of different peasant families showed that non-agricultural income accounted for 25 to 70 percent of total farm family income. Moreover, the greater the extent of deagriculturization, the higher were peasant incomes. We can see that this is an objective law that cannot be changed by the subjective will of man.

II. The Key Is Rural Industrialization

In the long-term view, tertiary industries are the weak link in the trend toward deagriculturization of the rural areas of China, while industry is the focus. The reason is that this considers not only the peasants and agriculture and that, during a reasonable period of time, it can absorb large amounts of surplus rural labor power and thereby increase peasant incomes, with the accumulation of large amounts of capital to promote agricultural modernization, which will depend primarily on rural industrialization; it also considers the acceleration of the process of development of the entire national economy and industrialization. We should take the route of integrating industry and agriculture and of integrating town and countryside, so that national industrialization does not become separated from rural industrialization. Otherwise, if we are restricted to the rigid viewpoint that cities engage in industry and rural areas engage in agriculture, or if we only rely on the manpower, materials and financial resources of the cities to run industry, or if we allow the peasants to come into the cities to set up industries, then both methods will be restricted. Moreover, it can expand the differential between industry and agriculture and cause an antithesis between town and countryside, neither of which benefit industrialization or conform to the principles of socialism and the ideals of communism.

This is not just a general principle. Although comrades involved in rural work and in local grassroots work are coming to a deeper understanding of it, the regretful thing is that not too long ago some cadres involved in urban work and industrial work, as well as those involved in economic theory, did not understand it. When the subject of rural work was brought up, they felt that the term "readjustment" required closing down and transformation. The total value of rural industrial output in some provinces and countries increases very quickly, but they were sad instead of happy. Some people suggested that rural industrialization was an organic component of industrialization of the country as a whole and industrial modernization. They shook their heads vigorously. Up to 1984, when the CPC Central Committee and the State Council issued circular No 4 re-emphasizing that a new situation should be created in rural and small town enterprises. Only then were there obvious changes in public opinion and all lines of work.

On the other hand, precisely because of such unfavorable conditions, rural industry (termed commune and brigade industry in the past, now called rural and small town industry) has grown rapidly since the 1970's and has quickly become an important force in the national economy, rural economy and industrial economy of China, revealing their enormous vitality. The total

value of output in rural industries in China increased by about 10 times over 15 years and now accounts for more than one-eighth of the total value of industrial output (including commune and brigade industries) and about one-third the total value of output in the rural economy. This proportion is much higher in the several highly developed suburbs of some cities, in Jiangsu and Guangdong provinces and in certain other counties. It occupies an equal position with local industry in some areas. In some places it already exceeds to a substantial extent the value of output from agriculture and sideline production. In some places it employs more than half the rural labor force and provides 80 to 90 percent of peasant family incomes. What deserves attention is that this is true not only for relatively developed provinces and counties but for other areas as well. Many originally unforeseen new conditions have appeared in rural industry:

1. Rural industries gradually have assumed a superior position for some lines and products and will become the primary force in these areas. Rural industries now account for about 80 percent of local construction material, medium and small farm tools, drawnwork, embroidery, fireworks and firecrackers, bamboo, rattan, palm and wicker weaving and other products. In energy resources, rural industries account for about one-fifth of the coal and about one-fourth of hydroelectric power. There also are processing industries for food products, feed and other farm and sideline products. The vast expanses of rural areas will become the dominion of rural industry. From this perspective, rural industries are an indispensable part of national industrialization.
2. There has been development in the direction of specialization, with specialized households, specialized villages, specialized townships and specialized counties, forming a base area for each division of labor. Jinxiang town in Zhejiang Province's Wenzhou County has formed a commodity production and sales center that produces and manages aluminum signboards, plastic card products and red film ID cards. In Hebei Province's Lixian County, 56 percent of the rural labor force is engaged in acrylic fiber textile production, management, shipping and sales, and it has been named a specialized acrylic fiber textile county.
3. Break down ownership system and regional restrictions, develop specialized coordination and joint administration between counties and cities, and form a base for large industry. Peasants who set up factories and hang up a county sign official certificate soon have good products and proper prices. Examples include Yantai, Weihai and other cities in Shandong Province, which have opened up product packages and sold parts retail on a wide basis, forming several integrated systems between town and countryside, including carpets, industrial arts products and other products that are famous throughout China and the world. Moreover, about one-half the components used in light industry products made in Shanghai Municipality, including some of the "several major parts," come from rural areas, and some are installed in rural areas. Some 98 percent of the parts in Beijing Municipality's White Lotus washing machines are produced in rural and small town industries. This has greatly reduced the pressure on cities, made closer the relationship between town and countryside and enriches the rural economy.

4. Expand the scale of single factories, enter into new spheres, create some new sophisticated products. This already has appeared at many levels in provinces and counties with good foundations. Wuxi, Jiangyin and other counties in Jiangsu Province are examples. The rural areas have many medium-sized factories hiring over 1,000 persons, with value of output of several 10 million yuan and workshops covering several thousand square meters. A great many facts show that it is incorrect to assume that rural areas are capable only of running a few outdated small factories.

5. Export products, utilize foreign capital, import foreign technology and begin to enter world markets. Strive to make a contribution to opening up to the outside. Originally, the primary export products of rural industries were local special products and artistic handicrafts. Changes have occurred in recent years. This is especially true of coastal villages in Guangdong, Fujian and other provinces. They have been importing and there have continual increases in enterprises and products. The viewpoint that rural industrial products are too inferior to be sold outside the county or the nation no longer conforms to reality.

6. Use industry to supplement agriculture and create wealth. Promote the development of local scientific education, culture, public health, finance, information, tourism and other enterprises and accelerate construction of small towns. Using industry to supplement agriculture and to promote wealth has been raised to new levels in recent years and it has been extended into provinces and regions with relatively poor foundations. Examples include the small powdered milk plants set up in Qinghai Province's Haidong Prefecture. All counties in the prefecture have developed the dairy cattle industry, the amount of feed has increased and improved cattle varieties have become popular. The vast rural areas in the counties of the Taihu Lake region in the lower reaches of the Chang Jiang have depended on industry in a high tide of establishing and operating middle and elementary schools, television universities and spare-time universities, and they have established science and technology stations, cultural centers, theaters, and opera houses, hospitals and other things. They have attained a dual bumper harvest of material civilization and spiritual civilization and have brought new life to many declining small towns. The people already have seen the material aspects and spiritual aspects of rural industries in bringing profound changes to the vast rural areas.

The above discussion, of course, is not complete and there is a great imbalance between areas. There is no doubt, however, that rural economic structures have undergone quantitative and qualitative changes and that they are in the process of further readjustment. A prominent element is that they now are moving toward industrialization. This is a new stage. In the long-term view, it is only a starting point. The road is hard and long but it is boundless.

III. The Challenges and Opportunities Faced by Rural Industries

What are the prospects for rural industrialization? Many comrades have pointed out that it faces a challenge, even a "crisis." Rural industries have been able to develop very quickly in the past few years. They are facing internal

pressures (surplus labor power, little income) and external tensions (the needs of productive construction and the people's livelihood), and there are various objective conditions, including questions of policy support. What is even more important, however, is giving greater vitality to the system of rural industry itself. This refers to the fact that it has no "big common pot" to eat from and has no "iron rice bowl" to carry. They handle their own administration, are responsible for their own profits and losses, and they basically are commercial producers and managers who unify responsibilities, rights and benefits. China now wishes to accelerate the pace of reform in economic systems in order to give greater vitality to urban industries, especially enterprises under ownership by the whole people. This is the strong challenge faced by rural industries. The advantages of rural industries will become the common advantages of town and countryside. Many disadvantages like outdated equipment, backward technologies, information blockages, personnel shortages and other reasons can be found in rural industries in many areas. The question of whether their future is a good or bad one has become an arena of debate.

The opinions coming from those in rural industries indicate that many comrades feel that it may be a challenge, but is an even greater opportunity. Reforms of economic systems will liberate the forces of production. They will encourage all enterprises, including rural industries. The opportunities they are facing are:

First, there has been a takeoff in viewpoints toward rural industries. Under the overall goal of constructing a socialism that is Chinese in character, everyone has been raising their knowledge of China's national situation and the road to modernization in recent years. "The peasants will never become wealthy if they depend solely on farming," "it is inconceivable that the peasants do not run industries," "urban industry should expand into rural areas," and other ideas have sunk into their hearts. Responsible comrades of the Fujian Provincial CPC Committee said, "Invigoration of Fujian's economy must rely on rural and small town enterprises to lead the way." Responsible comrades of the State Council Economic Research Center feel that there will be 10 major trends in economic development in China over the next 20 years. The first trend is that "China's population will undergo a shift from agriculture to non-agricultural activities." Although there may have been some doubts about these ideas in the past, most now believe in them and public opinion tends to support them.

Second, policies related to rural industries have been implemented to a further extent. Comrades involved in rural industries felt that Circular No 4 of the CPC Central Committee and State Council of 1984 indicates that the development of rural industry has entered a new historical stage. Under the guidance of this circular, many provinces and regions have formulated various concrete policies to encourage and support the development of rural industrialization and have enabled them to grow under normal circumstances.

Third, an acceleration of the pace of reforms of economic systems will give greater vitality to all enterprises. The improvement in external conditions will give ever greater and more obvious vitality to rural industries.

Implement planning systems that make conscious use of the law of value to transform the old "rigid" patterns of the past where there was excessive unification and administration. This will permit rural industries, which have grown up in the "cracks" of the economy, to have a new lease on life. Originally, they worried about supply and sales. The scope of directive planning now is being reduced gradually, so there will be even greater room for rural industries to purchase raw materials and sell commodities.

Acknowledge that a socialist economy is planned commodity economy and that it is possible for there to be capital markets, technology markets and information markets under socialism. This is like giving a fish water for rural industries, which must depend on market mechanisms to operate. It was extremely difficult to collect capital in the past, but now they can seek shareholders and ask for loans. In the past, access to technology depended upon the "back door" of unofficial channels. There now are legal channels. In the past, an understanding of information necessitated reliance on "the grapevine." They have become quite informed now, and some are purchasing information at high prices. Furthermore, is there a socialist job market. Recently, some people have charged rural industries with "undermining" by using large bonuses to recruit "capable people" (older employees, technical personnel, plant managers, administrators and even "senior officers" who have resigned or retired to take up positions in rural industries). The question is why rural industries are paying such high prices to enable talented people to perform. In other enterprises or departments, capable people still are "sitting on a cold hard bench." It appears that reforms in economic systems should be beneficial to promotion of the optimum combinations and appropriate movement of capital, technology, personnel and other forces of production. The rural industries whose purchasers and salesmen and even recruiters are kept busy every day enlightened us quite a bit.

The coordination of other steps in the reform of economic systems plays a motivating role. An example is giving more play to the role of cities as centers and making closer the relationships between town and countryside. Multiple channels, fewer links and open forms for commodity circulation will break down artificial separations and facilitate the circulation of goods. Especially important are price reforms and wage reforms, which provide external and internal advantages for all enterprises including rural industries.

Moreover, further development of agricultural and sideline production will provide welcome pressure for the development of industries in rural areas. There are many grain cash crops and many forstry, sideline and fisheries products, and they all need to be processed. Most farm and sideline products will become processed locally to a greater extent. This is not limited to coarse processing. We also must move toward refining and multiple processing. This is an opportunity both for regions with a good rural industry foundation and those with a poor foundation. On the industrial battlefield, there will be more food products, textiles and other newly-emerging industries and a new situation where "the rural areas encircle the cities" will appear.

A look backward at the developmental process of rural industries over the past few years suggests several stages. The period from the early 1970's to the restoration of order has been called "gaining victory in chaos" and "victory in filling gaps." Rural industries rapidly created a new situation. Economic

readjustment following the 3d Plenum of the 11th CPC Central Committee has given rural industries even greater room to move because "a small boat can change its course quickly." Rural industries have continued to make progress over the past 2 years and have grown at a substantial rate, again higher than that of other collectively-owned and state-owned industries. The largest increase was in Jiangsu Province, where the total value of output in rural industries was 16 billion yuan in 1983, up by 20 percent over 1982, and where it accounts for one-fourth of the total value of industrial output. It grew by 30 percent in the first 3 quarters of 1984 and is predicted to surpass 20 billion yuan for the year, a level greater than any other province or autonomous region in southeast, northwest or northeast China with the exception of Sichuan and Liaoning provinces. What draws special attention is that Wuxi County, which always has occupied first place in Jiangsu Province and in China in rural industries, completed its annual plan for 1984 during the first half of the year. There was a 40 percent growth rate compared to the same period of 1983. They relied primarily on inputs of knowledge and technological development.

These peasant entrepreneurs have a different outlook than some of our comrades. We often feel that the inability to increase output or to develop is due to our fear of "blind investments" and "redundant production." The peasants feel that China is an enormous market and that supplies of many products do not meet demand at present. There are many ways to increase output and develop but they cannot make progress no matter how hard they try. Now, for example, these enterprises are focusing their work on grasping technology, development and new products. They are thinking of the next generation of products as well as second, third and fourth generation products from scientific research, design, ideas and planning all the way to production and trial manufacture, with continual development generation after generation and continual renewal and substitution. This indicates that the aftereffects will be substantial! These are the prospects of rural industries, the prospects of rural industrialization and the beautiful future of industrialization as a whole.

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NATIONAL LAND RECLAMATION SYSTEM TOTAL PROFIT REPORTED

Beijing NONGMIN RIBAO in Chinese 13 Feb 85 p 1

[Article: "The Total National Profit of the Land Reclamation System from 1984 Is 835 Million Yuan"]

[Text] The state farmland reclamation system throughout the country has been making a profit for 5 consecutive years and, in 1984, industrial and agricultural production again set a new historic record. The total production of commodity grains reached 6,139,000,000 jin, an increase of 5.3 percent over the preceding year; 166,000 tons of dried glue, an increase of 5.1 percent; and there was also increased production in cotton, sugar and dairy products. According to estimates, total industrial and agricultural output would reach 13,745,000,000 yuan, an increase of 8.5 percent over the preceding year; and the net profit would be 835 million yuan.

In 1984, there were outstanding results in the breakthrough that the national land reclamation system had made in setting up family farms. Professional family farms now number nearly 30,000 and their personnel also account for around 70 percent of all workers in the field. In many areas, there have been great efforts to establish family farms. As a result, there are already many farms where the annual net income reaches 10,000 yuan or in which the early harvest reaches 10,000 jin of grains. At the same time, family fisheries, forests and pastures have also developed.

Through their overall reform, the state-run farms have already advanced to the stage of combined management of industry and agriculture within the land reclamation system. This year, the organization of this system has already been implemented within the joint management of agriculture, commerce and industry. As a result, there have been great structural changes in the land reclamation area. The proportion of industrial production in gross output value of industry and agriculture grew by 12.6 percent over the past year; more than 20,000 key points in the commercial network were established; total social retail sales were valued at more than 2 billion yuan, and profits from commerce were over 70 million yuan. Under the guidance of the economic strategy of "domestic economy contract system combined with foreign trade" the land reclamation system has been actively seeking and utilizing foreign capital. Last year, 34 projects involving foreign capital amounting to \$220 million were undertaken.

Both the establishing of family farms and the development of agriculture, industry, and commerce has improved the economic results of state-run farms. As a result, state land reclamation enterprises have been able to turn losses into profits. With the exception of the four major reclamation areas, the profits from the state land reclamation system in all the provinces, autonomous regions, and municipalities increased 7.7 percent last year. Enterprise losses also fell from 18.6 to 14 percent.

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JPRS-CAG-85-024
23 July 1985

BRIEFS

FARM PRODUCT PRICING, SUBSIDIES--After the large increases in farm product procurement prices in 1979, due to the lack of coordinated arrangements between grain and oil pricing, grain and oil selling prices fell below procurement prices. This caused the appearance of an inversion in buying and selling prices on a nationwide scale. Many contradictions resulted. First, it was detrimental to equitable organization of production and circulation. Implementation of inverted prices caused operating units to be profitless and to lack the initiative for expanded production. Second, an abnormal situation occurred in which the greater the bumper harvests in agriculture, the greater the public finance difficulties for the state. Between 1979 and 1983 state grain procurement increased from 144 billion jin to 249.4 billion jin, and oil product procurement rose from 3.1 billion jin to 5.3 billion jin. Interconnected with this, grain and oil subsidies rose in the same years from 7.2 billion yuan to 18.3 billion yuan. [Text] [Beijing JINGJIXUE ZHOUBAO in Chinese 17 Mar 85 p 11] 12510

CSO: 4007/324

TRANSPROVINCIAL AFFAIRS

NONGMIN RIBAO REPORTS HUSKED RICE, WHEAT QUOTATIONS

Beijing NONGMIN RIBAO in Chinese 23 Mar 85 p 2

[Text] Prices quoted are in yuan/jin, as follows:

<u>Market</u>	<u>Variety Grade</u>	<u>Negotiated Retail Price</u>	<u>Country Fair Trade Price</u>
Beijing	Grade-3 husked rice	0.36	0.55
Tianjin	Intermediate-grade husked rice	0.41	0.45
	Intermediate-grade wheat	0.22	0.24
Shenyang	Brand-1 husked rice	0.38	0.38
	Grade-1 wheat	0.25	
Dalian	Eastern brand grade-2		
	husked rice	0.38	0.45
	Grade-2 wheat	0.26	
Harbin	Grade-2 husked rice	0.42	0.41
	Grade-3 wheat	0.23	0.24
Shanghai	Brand-1 polished round-grained nonglutinous white husked rice	0.32	
Guangzhou	Early class-3 rice	0.27	
Zhongqing	Intermediate-grade husked rice	0.29	
Xi'an	Late polished long-grained nonglutinous husked rice	0.27	0.34
	Intermediate-grade wheat		0.25

12501
CSO: 4007/324

ANHUI

INCOME OF ANHUI FARMERS REPORTED UP IN 1984

Hefei ANHUI RIBAO in Chinese 21 Feb 85 p 1

[Article by the Anhui provincial rural sample investigating team: "The Continual Rise in Income of Anhui's Farmers"]

[Text] According to an investigation carried out among 1,200 rural households in 20 counties, the income of Anhui's farmers during 1984 continued to rise, following the general tendency of the past 5 years. As a result, the new pattern of farmers' income shows structural changes.

During 1984, the average farmer's income in Anhui was 322.97 yuan, an increase of 6 percent over the preceding year, and also 1.85-fold greater than in 1978, with an average annual increase of 19.1 percent. Moreover, the number of households with an increase of more than 300 yuan is now the largest even, the figure rising from 46.3 percent in 1983 to 53.1 percent in 1984. Households with an increase of around 500 yuan also rose from 5.2 to 8.8 percent, while those with increases of less than 200 yuan each decreased correspondingly from 15.3 to 10.2 percent.

During 1984, the average income in cash (discounting any loan items) among provincial farmers was 270.67 yuan, an increase of 2.7 percent over the year before. Among the items that brought in cash, the yield from the sale of agricultural sideline products continued to rise in both amount and ratio. As a result, this item returned an average yield of 191.59 yuan, an increase of 4.5 percent over the year before. At the same time, receipts in actual cash from the sale of agricultural sideline products also continued to rise, among other items, to 70.8 percent compared with the 69.5 percent of the year before. The development of commodity production serves to make available a greater variety of products to society. Therefore, when we compare the volume of primary agricultural sideline products produced by family enterprises with sales volume, we find that sales of foodgrains amounted to only 31.9 percent of the volume of foodgrains produced, while the sales volume of cash crops, animal products, and aquaculture products averaged just over 60% of production volume of these items.

Among the net incomes during 1984, the income from agricultural production (i.e. the five enterprises of agriculture, forestry, animal husbandry,

sideline production and fishery), yielded on the average 252.58 yuan, an increase of 6.5 percent. At the same time, the income from other items, such as rural industry, construction, transportation, commerce, food and beverages yielded on the average 42.33 yuan, an increase of 24.9 percent over the year before.

In 1984, therefore, farmers obtained greater economic gains from both their production and management. Among the family enterprises, 100 yuan in production costs yielded 395.97 yuan in income an increase of 2.3 percent over the preceding year.

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CSO: 4007/.65

ANHUI

RURAL, SMALL TOWN ENTERPRISES IN ANHUI PROSPERING

Beijing ZHONGGUO XIANGZHENQIYE BAO in Chinese 2 Jan 85 p 1

[Article: "Gross Output Value of Rural and Small Town Enterprises High in Anhui"]

[Text] Anhui Province recognized the lack of development in its rural and small town enterprises and as a result, suitable measures and changes were carried out that have led to a complete turnaround in this area. Anhui Province has sent out a report on this issue, with the following information. In 1983, the total output value of the enterprises throughout the province was only 1.91 billion yuan; while the corresponding figure in October 1984 has already reached 3,166,000,000 yuan. Moreover, the number of prefectures throughout Anhui whose rural and small town enterprises reached the 100 million mark numbered only 1 in 1983 and by 1984 the number has gone up to 16.

We went to interview Vice Governor Meng Fulin [1322 1381 2651] of Anhui Province to find out the reasons for the rapid development of the rural and small town enterprises in his province. Vice Governor Meng informed us that the primary underlying reason for the rapid development was that all the leaders at the different levels had an extremely serious attitude after studying the Central Committee Documents No 1 and No 4 of 1984. As a result, these leaders made the following "five changes" according to the spiritual guidance in the documents.

There is a change in the attitude of the leaders and therefore now they believe and are determined to get wealth from labor and work. Within the last few years, although Anhui Province had widely succeeded in promoting the responsibility system, the rural and small town enterprises were neglected. By early 1984, both the local party committee and the administrative members had studied the Central Committee Documents No 1 and No 4 and as a result, their understanding of the principle, "There will be no wealth without work," was deepened. As a result, meetings regarding work in the rural villages were immediately called. At these meetings, the leaders of the different levels also reached their understanding of the principle of "wealth from work," thus changing their former attitude. Based on this common agreement, the provincial government then formulated "certain regulations to help in the rapid development of rural and small town enterprises." As a result, many of the regional and prefecture leaders quickly took cognizance of their own situations and they in turn, basing their work on the "regulations" of the provincial government, carried out their own measures to help in these enterprises' development and also to protect the rural workers in their own labor or commercial enterprises, as well as to do away with any

matters that might encroach on the legitimacy of these enterprises. These local measures were also designed to solve the practical problems that any of the enterprises may come across in their production, supplies, marketing, personnel, finance or material and, as a result, the actual development of the rural and small town enterprises may be advanced. Huaiyuan Prefecture has solved many of these problems. In particular, they have emphasized the development of the following five categories of enterprises: the processing of oil from grains, transportation, construction material, aquaculture and weaving. As a result, production in these five enterprises was greatly increased. The total production value of the whole prefecture in 1984 was 110 million yuan; total production value of the whole prefecture thus doubled in 1 year's time.

In Anhui Province, the change in the development of rural and small town enterprises has been in adopting a variety of economic models and new ways. In the whole province, all the enterprises of the rural areas, villages, cooperative units and families now have joined together to establish joint economic units in order to go on the new path that will help advance the general development of rural and small town enterprises. In 1983, there were only 46,000 enterprises in the whole province. By 1984, this number had increased to over 260,000 enterprises that are respectively managed by the rural areas, the villages, different joint ventures as well as by individual families. The number of people employed now is 2.1 million. These rural and small town enterprises also account for over 12 percent of the working units in rural villages.

Changes in some of the policies of the rural and small town enterprises concerned changes that have been made in the application of the "three imports." In the past, the principle of "acquiring resources, processing and selling locally" was strictly enforced in the province. In 1984, the policy was no longer enforced, since the new aims are to attract capital funding and to employ new equipment, technology and personnel in order to achieve effective results. As an example, Anqing Prefecture succeeded in getting over 7 million yuan in capital investment. As a result, in that prefecture there were 155 new technical enterprises, as well as 1,800 additional technical personnel, and the introduction of 100 new sets of equipment. This development in Anqing Prefecture has played a significant role in the development of rural and small town enterprises throughout Anhui Province.

There was also a change in the focus of development. As a result, great effort was put in the building of the following four industries: construction materials, food processing, animal feed, and the opening of mines. In the past, Anhui Province had the tendency not to have planning in their development; however, in 1984, the principle of planning according to local conditions and systems was strongly emphasized and as a result, production development is now tailored to market trends. The practice of this policy has resulted in great benefits for Anhui since the province has been enabled to fully exploit its strengths. For example, in the construction industry, a total income of 300 million yuan was made from the work that had been done by about 100,000 workers who had gone to work in construction outside the province--an enterprise that had been organized

by the province. At the same time, with the development of the four important enterprises that were discussed earlier, the development of the transportation industry has also been advanced. As a result, during the first half of 1984, the total number of vehicles in the province increased: 5,000 heavier cars, nearly 100 big and small trucks, and nearly 30,000 tractors, carts and boats. This sizable group of vehicles has not only helped create more income, but has also contributed to the development of other enterprises.

After the change in management methods, the system of complete production responsibility was widely promoted. In 1984, the practice of complete reform in the management of the hydraulic sealing factory in Ningguo Prefecture was widely promoted in the province, where the application of the principle of "one system of responsibility and three changes" had been carried out. As a result, more than 95 percent of the enterprises in the province have implemented the system of letting the head (the manager) of each factory assume complete production responsibility. Many educated personnel who also knew how to run enterprises and were aggressive in ability were, therefore, selected to be the leaders of enterprises in Anhui. They have energized the whole field of industry in the province. Wuhu City has also carried out the same practice of the "one responsibility with three changes." As a result of their employment of capable personnel, 65 percent of the annual production value of the city was achieved in only 5 months--a value that doubled the previous year's figure.

Vice Governor Meng Fulin, however, also added that although the development of the rural and small town enterprises in Anhui had advanced rapidly during 1984, when compared with other more advanced provinces and cities, the development lags behind. Therefore, during 1985, particularly in the structural changes and reform of agricultural enterprises the aim is to be the "clever housewife." As a result, great development will be made in the processing industries that use agricultural sideline products as resource materials; at the same time, great efforts will also be spent in advancing technology and in employing people with special capabilities. The theory "without capability, there will be no success" will be widely promoted and thus productive forces will be advanced and the development of rural and small town enterprises in Anhui will reach a new threshold.

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FUJIAN

FARMERS' COLLECTIVE-CAPITAL ENTERPRISES REPORTED THRIVING

Beijing ZHONGGUO XIANGZHENQIYE BAO in Chinese 12 Jan 85 p 1

[Article: "Farmers' Collective-Capital Enterprise Thrives"]

[Text] During 1984, the farmers' collective-capital enterprises sector in Fujian Province advanced at a tremendously rapid rate. As a result, by the end of the year, the amount of capital funding in this sector reached over 200 million yuan, the enterprises themselves numbered over 36,900, with the total gross production value more than doubling that of the year before and is now more than 540 million yuan. According to budget estimates, the total production value of the rural and small town enterprises throughout Fujian may reach 3.7 billion yuan, an amount that will exceed the goal of the Sixth 5-Year Plan. Chendi Town, where Fujian's first rural and small town enterprises developed, is also the first to reach the 100 million yuan mark in agricultural, industrial and sideline production.

Farmers' collective-capital enterprises have already become an important sector of the rural and small town enterprises in Fujian Province. These farmers' collective-capital enterprises have already developed from the stage of collective labor to the phase of collective technology and large-scale commodity production. The farmers' collective-capital enterprises in Fujian Province have the following characteristics.

These farmers' collective-capital enterprises have begun to develop from their small but specialized basis toward joint enterprises as well as enterprises of higher quality. An example can be seen in Xiadu Village of Jinjiang Prefecture where 10 of the factories that produce surface tiles, ceramic handicraft products and chemical dyes have pooled their capital resources to set up on an equitable basis the "Headquarters of the Xiadu Surface Tiles Factory," where development has been advanced through joint programs for technology, administration, marketing, finance and production. At the end of last year, the production income of this joint venture reached over 7 million yuan. Another example is Wang Chengjia [3769 2052 0163] of Shixiang Prefecture, who combined the resources of 12 enterprises into an overall management unit. As a result of joint marketing, such machines as those for use in electric-vacuum plating, plastic molding, and four-color reproduction printing have been imported from abroad. In addition, trade has been established between Wang's management unit and merchants in Hong Kong and with units in over 10 other provinces throughout China. As a result, the small factory progressed from small- to large-scale production with an annual production value of more than 6 million yuan.

There has been continual technological progress among the people's collective-capital enterprises, too. Take the example of the factory that is located in the suburbs of the Pudian Prefectural City. The factory was founded jointly by Lin Jingyao [2651 6855 5069] and his two brothers to produce optical instruments. They were able to obtain funding capital of 160,000 yuan and they had also succeeded in training 300 farmers and technical workers. As a result of their success in experimentation, they have produced microscopes and surveying instruments, as well as underwater cameras and over 20 kinds of intricate optical instruments that are based on optical differentiation. Some of these instruments have filled gaps among products of our country. Another example is the factory that was founded by Lin Jinzhong [2651 6855 4429] and his two brothers in Fangjia Village near the town of Chendi in Jinjiang Prefecture, to produce fittings for weaving machinery. The "cross-shaped" spindle that has been produced in this factory is capable of producing 4,000 turns per second, as well as absorbing lint at the same time. The use of this spindle design has already been widely promoted among many of the weaving factories in the country. Recently, their successful experimentation has led to the production of a new kind of fluorescent lighting that is turned on by a switch without having to go through ballast or conduction devices.

Some of the farmers' collective-capital enterprises of Fujian Province also practice good communications that will lead to greater economic results. An example can be seen in the metal hardware factory that was founded by Guo Wenhua [6753 2429 5478] and his two brothers in Fengting Village, Xianyou Prefecture. This factory has relied heavily on the use of the latest information that is relevant to their production. As a policy, the staff of their office in Beijing would frequent the big department stores and especially the hardware counters. When they see what particular small hardware products are most popular with consumers, they arrange for these products to be designed first in Beijing and taken to their Xianyou factory to be manufactured. At the moment, the variety of products manufactured by this factory has increased from 20 to over 230, and these products are also being sold in over 20 other provinces and cities. Another example is the factory of Lin Tuqiu [2651 0960 4428] and his brother that makes clothing, shoes and hats in Yangdi Village in Jinjiang Prefecture. As a result of their familiarity with the latest information on fashion from all over the country, they have been able to make products that are noted especially for their most fashionable styles. During his inspection of this factory, Premier Zhao praised its products as "foreign goods that are made locally." In August last year, the Lin brothers also organized "an exhibition of products for family use," to which they invited marketing personnel from Beijing, Tianjin, and Shanghai. On that occasion, three large companies that sell hats and shoes in Beijing, Tianjin and Shanghai placed an order for goods that were worth more than 1.6 million yuan.

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CSO: 4007/211

GUANGDONG

UTILIZING FOREIGN CAPITAL IN AGRICULTURE

Guangzhou NANFANG RIBAO in Chinese 1 Apr 85 p 1

[Article: "Guangdong Has Achieved Brilliant Success Utilizing Foreign Capital, Since the 3d Plenum of the 11th CPC Central Committee, Throughout the Province of Agriculture, Forestry, Animal Husbandry and Fishery Industries Have Signed Nearly 500 Foreign Contracts and Have Utilized Over \$270 Million of Foreign Capital"]

[Text] Guangdong's various departments of agriculture have made comparatively good progress by utilizing foreign capital. Since the 3d Plenum of the 11th CPC Central Committee, throughout the province the agriculture, forestry, animal husbandry and fishery industries have signed 499 foreign contracts and utilized \$277.8 million of foreign capital. In addition to this, rural and small-town enterprises have signed over 22,700 "three comes and one compensation" foreign contracts, imported over 210,000 pieces of equipment and had over \$500 million in earnings and fees.

Since the 3d Plenum, the various departments of agriculture have fully utilized and given full play to the advantages of Guangdong by actively developing various economic techniques and cooperating in activities with foreign parties. The province used foreign capital to import improved plant varieties and animal breeds for agriculture, forestry, animal husbandry and fishery industries. Among these were more than 2,600 lean meat pigs, over 1,600 head of high-producing dairy cows and over 800,000 poultry of an improved variety. Also imported were improved varieties of vegetables, fruit, flowers and plants, trees and fish. This spreading of improved varieties and breeds improved the quality and increased the output of our agriculture sideline products and promoted development in the industries of agriculture, forestry, animal husbandry and fishery.

During this same period, related departments of agriculture used foreign capital to import technically advanced equipment for agriculture and started some modernized agricultural enterprises. The land reclamation system used a \$100 million loan from the World Bank to plant 600,000 mu of new crops and rubber trees. In the area of

aquatic products, \$42 million of foreign capital was used to import fairly advanced fishery technology and equipment; among the imports were more than 360 fishing boats having a total of nearly 100,000 horsepower.

Actively utilizing foreign capital and importing advanced technology and equipment will raise the quality of products, strengthen the competitiveness of agriculture sideline production on the international market and increase foreign exchange earnings. During the last few years, the aquatic product departments have utilized foreign items in the production of high-quality aquatic products totalling over \$40 million. The products of Guangdong's rural and small-town enterprises not only sell well throughout the county but also have over 1,000 products on the international market. Last year, the total sales of export products for rural and small town enterprises province-wide was more than 540 million yuan, resulting in a new situation that is very gratifying.

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GUANGDONG

BRIEFS

GUANGDONG FISHERY OUTPUT--Guangdong is the first province in China to have a fishery output exceeding 1 million tons. Last year, its gross output of aquatic products reached 1,035,000 tons, an increase of 11.6 percent over the previous year. The per capita amount of aquatic products provincewide was 34 jin, which was first in the nation and 10 jin over the national standard of 24 jin that was set for the year 2000. After the fishery industry was expanded, aquatic product markets throughout the province were invigorated, with seafood, freshwater fish and pond fish being choice and sumptuous and having stable prices. Not only has the problem of fish supply basically been solved in cities and countryside, but also since last year large amounts of quick-frozen carp, dace and other freshwater fish have been supplied to the areas of Beijing, Tianjin and Jiamusi. [Text] [Beijing NONGMIN RIBAO in Chinese 7 Mar 85 p 27 12704

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JPRS-CAG-85-024
23 July 1985

TRENDS OF NEW TYPES OF MARKETS DETAILED

Beijing NONGMIN RIBAO in Chinese 13 Feb 85 p 2

[Article by the Rural Policy Research Office of the Baoding Prefectural CPC Committee of Hebei Province: "New Trends in New Types of Markets--A Report on 10 Specialized Markets in Baoding Prefecture in Hebei"]

[Text] I. The Huge Market

In Baoding Prefecture during the last few years, there have emerged new types of specialized markets which serve specifically rural commodity production. Baoding is a triangular-shaped prefecture that is bordered by Beijing, Tianjin and Shijiazhuang.

We looked into 10 of the new types of specialized markets. Most of them had begun in counties in the plains where commodity production had been developed to a higher degree, and now these markets have also begun to spread to the counties in mountainous areas.

These 10 types of specialized markets are for: acrylic fibers in Lixian County, synthetic leather in Xincheng County, synthetic fibers in Wangcun of Rongcheng County, gauze in Liguozhuang of Gaoyang County, small commodity products in Baigou of Xincheng County, wheel axles in Wanan of Lixian County, fur in Liushi of Lixian County, the distribution of herbal medicine in Anguo County, for scrap iron and steel in Chengguan of Xushui County, and scrap wheel axles in Daxinzhuang of Dingxian County. In general, these specialized markets can be divided into five principal types according to function:

1. To Supply Raw and Processed Materials for Rural Commodity Production

The products that are sold in this type of market are used primarily in the processing industries. In the rural areas of Rongcheng County, the apparel processing industry is relatively well developed. The synthetic fibers market of Wangcun serving this industry sells finished clothes along with great yardages of synthetic fibers and auxiliary materials. During the busy season in this market, the traders number around 2,500, by whom 60,000 m of different yardages are handled. Within the last 3 years, the total yardage traded reached 150 million m, worth 120 million yuan. This specialized market, therefore, serves both the specialized households for their purchase

of production materials as well as some of the state-run factories and enterprises as an outlet for their products.

The 36 tons of polyester knitted fibers that the warp-knitting factory of Anshan brought in were all rapidly sold. Now, in Rongcheng County, 30 percent of the households and 46 percent of the workforce are engaged in the apparel finishing industry. Annually, their total production output is over 30 million in items and their net income is 20 million yuan.

2. Marketing of Processed Goods

The acrylic fibers market in Lixian County is the most famous of this type of market. Its markets are concentrated in the villages of Beizong, Duanzhuang, Xinxing, and Dabaichi. Among these, the market at Beizong is the busiest--early every morning stalls are to be found everywhere offering acrylic fibers of all patterns. The average number of stalls here is 1,500, with as many as 4,000 on some days, while traders number from 4,000 to 5,000.

3. Wholesaling of Small Commodities

Every day during the busy season in the wholesale commodity products market in Baikou of Xincheng County, the stalls number more than 2,000. Here, over 20,000 products from 7 major categories are traded, including small daily necessities, stationery, hardware, synthetic leather, bicycles, and toys, and 75 percent of the goods that are sold here are processed by the various local specialized households. These products are sold wholesale to local individual households or outside commercial traders, who will then in turn market them in the urban and rural areas of over 20 provinces, cities, and autonomous regions. At present, among the 26,000 specialized households here, 17,000 are engaged in the production of small commodities.

4. Scrap Materials

These markets primarily serve those companies that buy scrap steel and surplus metal trim from such large cities as Beijing, Tianjin, and Baoding. Their customers include farmers, laborers and cadres, as well as organizations, collective units and industrial enterprises. Scrap wheel axles and other similar materials are sold at the specialized market in Daxinzhuang in Dingxian County. Most of these parts have originally been obtained from the 20 wheel axle factories outside, in 11 other provinces, cities and autonomous regions. All this material will then be refinished or restored before being sold. Over 300 stalls that have come from 20 counties within this province are found in this market. The number of traders reach more than 2,000. Over 50,000 axles of 500 types are sold here. In 1983, the volume of business reached 330,000 yuan.

5. Collection and Distribution of Traditional Goods

Both the fur market in Lixian County and the herbal medicine distribution center in Anguo County have had long histories and also established reputations. These two markets have resumed their activities after the relaxation of economic policies.

From 50,000 to 60,000 items from over 60 different varieties of skins are sold daily in the fur market at Liushi. Moreover, 2 million pelts and whiplashes, and 300 fur-lined jackets are also traded. The traders that come here include both local and outside fur dealers, as well as buyers in the fur processing and apparel processing plants from all over the country. Annually, more than 6,000 traders use Liushi's fur market and its net income is 4 million yuan.

Anguo County is known traditionally as "the medicine capital." Within the last few years, the agricultural households that are engaged in the growing of herbal medicine have also been increasing in number. As a result, the types of medicine that are offered at the market in Chengguan in Anguo Prefecture include the rarer herbal medicines as well as seeds, seedlings and processed medicine. Daily, over 200 varieties and 50,000 to 60,000 jin are being sold here. Their customers also come from 28 provinces, cities, and autonomous regions to place orders and make purchases.

II. Origins and Formation of Specialized Markets

The majority of the specialized markets in the rural areas of Baoding Prefecture arose from nothing and have grown in size. In addition, they also experienced the stage of having been openly rejected everywhere before being welcomed and supported widely. In hindsight, we now know that the rise of specialized markets was a necessary condition for the development of rural productive forces. Furthermore, these markets have emerged because of the relaxation of party policies and the active support of leading cadres at all levels.

The development of rural commodity production began on a fragmentary and scattered basis and then their activities flourished to embrace households and then neighborhoods, villages and then entire rural areas. The regional bases of some of these specialized commodity productions were formed when large flourishing numbers of households engaged in the production of similar commodities began to group together. The special characteristics of these regional production bases are as follows: first, the scales of production that are involved are comparatively larger; second, comparatively larger quantities of raw materials are also required; and third, the retail markets are also more extensive in their scope. Producers that may number as many as 10,000 in each base all want to secure the continuity of their production and seek higher economic gains. Therefore, they have higher demands: they ask first for the availability of all necessary raw materials at both low cost and with easy accessibility; and second, the sale of their finished products at short distances. It is, however, difficult to rely on the state-run and collective commercial organizations for these two important requirements. On the one hand, for instance, owing to the lack of adequate communications, some state-run sectors might not have sent large quantities of products to some rural areas that might be urgently needed there. On the other hand, the failure of state-run and collective commercial sectors to sell some of the rural industrial products would have invalidated completely the commercial value of these products, although they might have been exactly what the consumers were looking for. Under these circumstances, some of

the more daring or more experienced farmers have broken through all barriers and obstructions in order to get into the commercial sectors. As a result, they have set up markets at or near some of the bases of specialized commodity production in order to both provide these productive forces with raw materials and also sell the finished products. The size of these markets has been growing, rapidly becoming famous commercial centers for the distribution of specific products. These are what are now commonly known as the new types of specialized markets.

III. The Diversification of Markets

In Baoding Prefecture, the results of the flourishing of the various specialized markets can clearly be seen in the development of agriculture, industry and commerce, and in the general increase of wealth among the farmers.

1. Promoting the rational readjustment of the structure of rural productions: In Lixian County alone, over 90 percent of the labor force used to engage in agriculture; now, 60 percent are involved in the processing and selling of acrylic and polyester fibers or furs. The scrap metal market in Xushui County has also helped stimulate the entire processed ironware industry throughout the county including such specialized trades as electric welding, iron cables, water-heater insulation with silk padding, and water recycling compartments. More than 2,000 specialized households in 8 specialized villages are involved.

2. Opening up new circulating channels: In Lixian County alone, more than 20,000 people are engaged in the transportation of goods and products. Using their bare hands and shoulders, they run between the rural and urban centers, breaking boundaries and barriers between the two. As a result, a unique rural commercial system has been created.

3. Growth of financial income, accelerating farmers' acquisition of wealth: In Lixian County, the total tax yield of 1983 from all the agricultural and industrial enterprises was 4.92 million yuan. Acrylic fibers alone yielded 1.2 million yuan, which was 27.9 percent of the total taxes in the whole county. This is because the communes and brigades near these specialized markets have prospered, following the structural changes in their production.

4. Creating favorable conditions for establishing new and developing market towns: This is necessary because of the growing numbers of farmers who will come to the commercial sectors within these specialized markets. As a result, social services will also grow accordingly. For example, a new market town of considerable size has been planned for the small commodity market at Baikou in Xincheng County. As a result, the streets have already been widened and other construction has begun.

5. Training a new breed of farmer that knows about management and control: These people are both the active forces and the backbone of rural commodity production. They have been drawn from the following quarters: 1) farmers who are village and local cadres; 2) intellectual youth or former members of the army; 3) technical craftsmen with special skills; 4) ordinary farmers who have decided to try what they have seen others doing.

IV. Developmental Trends and Problems

The general trends of material development of the new specialized markets are as follows: 1) Some of the products that are sold in these markets have shifted from low to medium and high grade goods. 2) Purchasing and selling personnel, formerly "small but complete" individual families or households, are gradually becoming increasingly specialized divisions of labor and industry as well as economic associations. 3) The method of trading was formerly done by direct bargaining between the seller and buyer at the market, the exchange being made on the spot; now trading is done through a number of high-level forms that include the use of economic contracts, direct placement of wholesale orders, and commercial transaction warehouses and centers. 4) The ultimate consumers of the products that are sold at these markets, formerly concentrated in rural areas, are now to be found in urban and rural markets that are much broader and farther away.

There are several issues concerning the development of the specialized markets in Baoding Prefecture that need to be discussed and studied, including:

1. The issue of greater planning guidance. Because of the lack of good communications and other factors, the development of these specialized markets in Baoding Prefecture has occurred more in a haphazard way. This can be seen in their far greater concentration in the plains, with only very few being in the hilly or semihilly regions. In addition, the distribution of these markets among the plains counties is uneven.
2. The issue of further relaxation of policies. According to reports, farmers have felt strongly about the fact that responsible departments forbid free marketing of certain products and materials while other products are freely purchased by them at unreasonable prices. Upper level stipulations concerning whether certain materials may be marketed are contradictory, and thus the lower levels are at a loss as to what to do.
3. The issue of reasonable taxation. While it is the duty of every person in the country to pay taxes, nevertheless, the problem of tax evasion has reached severe proportions. According to investigations, commodity-processing households and transport and marketing households turn in only one-half their taxes due. In addition, in an attempt to attract customers and compete with nearby markets, some of the specialized markets have done their utmost to reduce or even cancel altogether their tax payments. At the same time, some departments have made random charges under a variety of false pretexts, which has created excessive burdens for farmers in their production and commercial enterprises.
4. The issue of establishing specialized markets. For historical reasons, specialized markets normally have been located far from cities and towns and their facilities are accordingly more primitive.
5. The issue of setting up organizations that provide social services. With the greater development of commodity production, and also the greater flourishing of specialized markets, the needs for social services also become more

pressing. In this regard, questions that are waiting to be looked into and solved include the communication of vital information regarding the trading of products, market estimates, the maintenance of roads that lead to markets, the accommodations of traders from other regions when they come to these markets, the necessity of adequate capital funding, and the supply of urgently needed building materials, the execution of business loans and the managing of negotiations and contracts.

6. The issue of advancing the development of specialized markets within the general economic reforms in urban areas. Because certain family industries have developed somewhat more slowly in the course of urban economic reform, difficult situations have been created and exacerbated. However, the urban economic reforms that have followed the 3d Plenum of the 12th CPC Central Committee will definitely have a direct effect on family industries in various trades and on the specialized markets.

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HEBEI

HEBEI REFORMS GRAIN ADMINISTRATION

Shijiazhuang HEBEI RIBAO in Chinese 23 Feb p 1

[Article: "Provincial Grain Departments Transfer Enterprise to Lower Administrative Levels"]

[Text] Approved by the provincial government, 187 grain-oil industrial enterprises and 160 fodder enterprises governed by provincial grain departments were put under prefectural municipal administration from 1 January 1985.

These enterprises still belong to the grain system after the transfer, but are supervised by the grain bureau of the prefecture or city. No department may divert, shift or take over the assets and funds of the enterprises. The central authorities own the state reserve fund but the provincial grain bureau may regulate it. The prefecture or city must define the duties incumbent on government and enterprise, simplify administration and release power so that an enterprise really becomes a relatively independent economic entity. The profit and loss of 1984 is the financial base of these enterprises, according to the second step substitution of tax payment for profit delivery. The depreciation fund is uniformly extracted at 4.5 percent on the original value of fixed assets and no longer turned over to the provincial grain bureau. The fundamental construction and replacement items are brought into unified administration of the prefecture or city plan and practiced by the grain bureau.

After transferring financial affairs to the lower level, the enterprises must continuously carry out the centralized guiding principles and administrative measures to buy, sell, adjust or store up grain and oil, and must pledge to fulfill on schedule the grain-oil processing plans issued by higher authorities and must continue to implement unified accounting and statistical systems. They should define clearly the economic responsibilities among the grain-oil industry, fodder enterprises and grain businesses. The original regulations remain valid regarding the appropriation of grain-oil materials, recall of finished products (and sideline products), standards for payroll expenses, methods of fixing prices, packaging management and final accounting of trade contacts, etc. The grain business must continue to provide support in such respects as raw material supply, storage and transportation, etc.

12756
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HEBEI

RURAL INDUSTRY UNDERGOING STRUCTURAL READJUSTMENT

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in
Chinese No 2, 23 Feb 85 pp 11-15, 40

[Article by Yan Ruizhen [0917 3843 3791] of the Chinese People's University
Department of Agricultural Economics: "An Economic Analysis of Current
Trends in Readjustment of Industrial Structures in Rural Areas"]

[Text] We recently did some research on changes in industrial structures in
Luancheng County.

Luancheng County is located in Shijiazhuang Prefecture of Hebei Province and
is famous in the North China Plain for its high wheat yields. According to
our understanding of the situation in other regions of northern China (the
Shanxi Basin and Zhongzhou Prefecture of Henan), the changes in industrial
structures in Luancheng County over the past year are somewhat representative
of other grain-producing areas of the North China Plain.

I. Trends in Changes in Industrial Structures in Rural Areas

The industrial structure of the rural areas of Luancheng County is now under-
going rapid changes. The primary driving force beyond the changes appeared
following the implementation of systems of output-related contractual
responsibility based on rural households. The large amount of rural surplus
labor is searching for an outlet through development of economic diversification
and commodity production. According to survey research on three villages
carried out by the Rural Economic Guidance Department of the Luancheng County
CPC Committee during August of 1984 in Dongxuying village in Loudi Township
and Xigong village in Xi'anzhuan Township and in Dongchai village in
Niejiazhuang Township, Dongxuying village, which has only 0.98 mu of cultivated
land per capita, has an agricultural labor force of 1,006 persons, 733 of them
surplus laborers, a surplus rate of 73 percent. Xigong village, which is near
the county average of percapita cultivated land area (1.6 mu/person), has an
agricultural labor force of 476 persons, 298 of whom are surplus laborers, a
surplus rate of 63.3 percent. Dongchai village, which has an agricultural
labor force of 392 persons, 211 of them surplus labor power, and a surplus
rate of 54 percent, is representative of regions of Luancheng County that have
fewer people and more land. The surplus labor power in all three villages
accounts for more than half of the total labor force. This surplus labor power

was serious prior to systems of contractual responsibility for output quotas, but it was hidden by the problems caused by the "big uproar" and "eating out of the big common pot," leading to serious waste of rural labor power.

The peasants now have their own decision-making rights over production and urgently require rational utilization of surplus labor power through the development of economic diversification and commodity production to invigorate the rural economy and increase incomes. This step has been visibly accelerated in the past year. When compared with last year, the readjustment of industrial structures in manifested primarily in the following areas:

1. A substantial decline in the area planted in corn.

In 1983, some 238,000 mu were planted in corn, while the figure declined to 188,000 mu in 1984, a decline of 50,000 mu, which can only be called substantial. It can be seen that, varying excessive changes in conditions, this trend toward a decline will be sustained in the future.

2. An obvious increase in mixed grains, vegetables, melons and other cash crops.

Among mixed grains, the area in millet increased from 46,800 mu in 1983 to 60,200 mu in 1984. Summer grains increased from 9,000 mu to 13,000 mu. Tubers increased from 12,800 mu to 21,300 mu. Soybeans increased from 1,500 mu to 6,900 mu. Oil-bearing crops increased from 3,200 mu to 5,400 mu. Vegetables grew the fastest, from 15,300 mu to 34,500 mu, an increase of 19,200 mu. Melons increased from 900 mu to 4,000 mu. The masses now are preparing for major increases in strawberries and other cash crops next year with plenty of zeal.

3. There has been considerable development of rural and small town industries and service industries, while fruit and animal husbandry production and farm and sideline product processing remain in a state of stagnation.

The sample survey of Dongxuying, Xigong and Gongchai villages described above showed that these three villages had a surplus labor force of 1,242 persons. Employment now has been arranged for 1,013 or 81.5 percent of them. The industries in which these 1,013 people are involved are: 462 persons or 45.7 percent in rural and small town industries including weaving and spinning, foundry work, machine tool processing, firecrackers etc.; 232 persons or 22.7 percent in service industries including commerce, shipping, repairs, restaurants, education, sanitation, and so on; 169 persons or 16.7 percent in temporary work and contractual work; 38 persons or 4 percent in construction; 26 persons or 3 percent in animal husbandry; and 23 persons or 2 percent in farm and sideline product processing. It can be seen that the primary route for surplus labor power is rural and small town industry, followed in second place by service industries and third place by temporary and contractual work. A very small number, however, are involved in animal husbandry, orchards and farm and sideline product processing.

The industrial structure of rural areas may be divided into three overall levels. The first level is the internal structure within cropping, mainly the

structure of grain and cash crops; the second level is the structure of cropping, forestry, animal husbandry, sideline production and fisheries, the basic structure of which is the structure of cropping, forestry and animal husbandry. The third level is the structure of agriculture, industry and services, which is the grouping of cropping, forestry, animal husbandry, sideline production and fisheries under the unified term agriculture and the structure of rural and small town industries and rural and small town services.

Analysis of these three levels of the industrial structure of rural areas permits the changes over the past year to be classified as:

1. In first-level structures, a substantial decline in the area planted in grain crops as exemplified by corn and the significant increase in the area planted in cash crops (manifested as oil-bearing crops, vegetables and melons).
2. In second-level structures, there have been few changes in forestry and animal husbandry, which indicates that there still has not been full development or readjustment of the structure of cropping, forestry, animal husbandry, sideline production and fisheries.
3. In third-level structures, the gradual growth of the proportion of industry and services.

II. An Economic Analysis of Current Trends in Changes in the Rural Industrial Structure

First, the readjustments of first-level structures in Luancheng County over the past year are fairly clear-cut and have the following primary economic causes:

1. There has been a substantial increase in grain output in all areas of China over the past few years. Return sales [grain deficient] villages have become surplus villages and the problem of difficulties in selling grain has appeared throughout China. The market price for grain has declined gradually. The current price for wheat is 0.25 yuan per jin and 0.08 yuan per jin for corn, and still no one wishes to purchase them.
2. Increased prices for industrial products used in agriculture. From 1983 to 1984, the average price for a ton of urea increased by 87 yuan. The negotiated price for urea increased by 120 yuan per ton, while the price for nitramines increased by 50 yuan per ton. The price for dinitro increased by 140 yuan per ton, the price for compound feed increased by 140 yuan per ton, the price for compound feed increased by 110 yuan per ton and hydrogen nitrate increased by 15 yuan per ton. The price for a ton of diesel fuel increased by 100 yuan, while the price per KWh for electricity used in agriculture increased by 0.02 yuan. The price of hybrid seed corn increased by 0.02 to 0.4 yuan per jin. The price of a thresher increased by 300 yuan. These things have led to a universal increase in grain production costs. According to another survey by the Luancheng County Agriculture and Industry Department

at Gaojiazhuang village, one mu of corn produced 700 jin with a value of 70 yuan. Deducting the costs of seed, water, electricity, fertilizer, retention of funds by the collective, agricultural taxes and so on, the income was about 40 yuan per mu. Each mu of corn required about 20 units of labor. Calculated at 2 yuan each, and deducting 40 yuan for the consumption of live labor, there basically is no profit that can be obtained.

The income from oil-bearing crops, vegetables, melons and other cash crops far surpasses that from grain crops. The area planted in corn in Wulipu village in Mengdengzhuang Township this year was reduced by 80 percent and shifted into the planting of millet, melons and vegetables. The predicted income may double or more.

3. The development of cash crops does not require excessive investments and does not have high technical requirements. Moreover, the peasants usually can grasp them quickly. Like grain crops, cash crops also are annual crops. The investments during a particular year can be recovered during the same year. It is an industry that requires few investments and provides quick returns. For this reason, internal readjustment of cropping during readjustment of third-level industrial structures to reduce grain crops and expand cash crops will be fairly easy to achieve. This is precisely the reason why readjustment of the industrial structure of rural areas generally begins with first-level structures, which involves readjustment of the internal structure of cropping.

This readjustment will benefit the peasants. In society as a whole, the increased incomes of the people will be accompanied by continually increasing consumption of edible oils, clothing, vegetables and fruits, and there will be changes in the structure of food consumption. This also makes readjustment of the industrial structure of the first level extremely necessary for meeting the people's demand for agricultural products. We should be active in encouraging this change.

Second, the primary reasons for the lack of readjustment in the industrial structure of the second level in Luancheng are:

In the structure of cropping, forestry and animal husbandry, the income from orchards and livestock inevitably is higher than that from cropping, but they both require more investments and take a longer time to recover the investments. Second, it is hard to transport most products of these production departments like fruits, meat, eggs, milk and so on. They are not easy to store and there are large fluctuations in the markets for them. Production also varies from year to year and is very unstable. The difficulty in controlling the spread of disease in animal husbandry often leads to large numbers of deaths. Overall, these production departments are more dangerous than cropping and the peasants have misgiving about them.

Moreover, forests and orchards as well as animal husbandry require higher feeding and cultivation techniques. They require coordination of pre-production, production and post-production service work including the supply of seedlings and breeding stock and supplies of mixed feeds and medicines and equipment. There are strict demands for product storage conditions and they need immediate processing. The products must be obtained day after day and be sold on a

daily basis. If any of these links are not complete or perfected, it will be difficult to develop orchards and animal husbandry.

Luancheng has such unfavorable conditions at the present time, and they are restricting readjustment of second-level industrial structures.

Readjustments in the industrial structure at the second level are, however, essential for readjustment of industrial structures in rural areas. The reasons for this are: 1) This readjustment is the key to whether or not rural commodity production will be able to make further progress. Broad areas are affected by readjustments in first-level industrial structures. Even when restricted to cash crops, fairly broad areas are affected by readjustment of second-level industrial structures. The milk, meat, eggs, furs and all types of aquatic products and fresh and dried fruits are abundant and varied animal protein foodstuffs and carbohydrate foods that are rich in vitamin content. The proportion of the food structure accounted for by these products not only reflects the level of the quality of food consumption, but also reflects the level of the development of rural commodity production. 2) Second-level industrial structures play a role as links between the past and the future in the overall industrial structure in rural areas. Of course, readjustments of first-level industrial structures create the capital conditions for readjustments in second-level industrial structures, but the outcome of readjustments in second-level industrial structures second level provides large amounts of organic fertilizers for cropping to fertilize the soil. Orchard production also provides an excellent ecological environment for the development of cropping. All of these solidify the readjustments in second-level industrial structures. Moreover, readjustments in second-level industrial structures continue to raise per-unit-area grain yields. Higher per-unit-area grain yields are needed before the area planted in grains can be reduced to expand cash crops and promote further readjustments in first-level industrial structures. The various types of agricultural products created by readjustments of second-level industrial structure are raw materials for the farm product processing industry. They increase rural incomes and are a prerequisite for the establishment and development of rural and small town industries and service industries. The development of forestry, animal husbandry and fisheries production also is a prerequisite for the existence of the various service industries. It can be said, therefore, that readjustment of second-level industrial structures actually opens the path for readjustment of first-level industrial structures.

We can see that the delay and failure in developing readjustments of second-level industrial structures are extremely unfavorable for development of the rural economy as a whole.

Third, there have been some developments in rural and small town industries and the service industry, and readjustments in third-level industrial structures now are underway.

Readjustments in third-level industrial structures are outside the realm of agricultural production. Increasing rural and small town industries (especially farm product processing) and service industries in its original sense is an inevitable product of the conditions for developing rural

commodity production to a certain degree. The reason is that the development of agricultural commodity production requires the corresponding development of farm and sideline product processing and of the manufacturing and construction materials industries for means of production. The development of commodity production in rural areas also requires the associated development of product storage, shipping and sales, supplies of means of production and maintenance, technical guidance and extension systems and other things. Only then can there be rural and small town industries in rural areas and rural service systems. In summary, regardless of whether one prefers rural and small town enterprises or service systems in rural areas, both are established through a close connection with the development of commodity farm products and growth in demand for commodity farm products.

Does the development of rural and small town industries and service industries reflect to a certain extent in Luancheng an inevitable outcome of the development of commodity production? In order to further dissect the process and characteristics of readjustments in third-level industrial structures, we did some analysis of the rural and small town industries in the three villages in Luancheng mentioned above. The industries with the primary new growth in these villages are: 1) Rural and small town industries, with 462 people, including 336 involved in weaving and spinning and the other 126 involved in machine tool processing, foundry work, cardboard boxes, making fireworks, and so on. 2) the 169 involved in temporary work and contract work; and 3) service industries, including commerce, shipping sanitation, repairs, selling vegetables, education, peddlars and so on, with 232 people. The rural and small town industries and service industries in these three villages are fairly representative of Luancheng. Their characteristics are that they are scattered, non-systematic, temporary, and unstable, and that they have not been established in accordance with the needs of commodity production in rural areas. This shows that the readjustments in third-level industrial structures still do not represent a new industrial structure that is established on the foundation of highly-developed commodity farm product production, but instead are some transitional industrial components that were developed quickly to make temporary arrangements for surplus agricultural labor.

III. The Focus and Direction of the Current Readjustments in the Industrial Structure of Rural Areas

The economic analysis of trends in changes in the industrial structure of the rural areas of Luancheng permits us to derive the following questions that deserve discussion:

First, industrial structures in rural areas can be categorized according to their nature into the two main classes of commodity production industries and service industries. Generally speaking, the production sectors of grain, cash crops and other crops of first-level industrial structures and the cropping, forestry, animal husbandry, sideline production and fisheries of second-level industrial structures belong to commodity production. The direct goals of production in these industrial departments are to obtain commodity farm products for sale in order to satisfy the ever-increasing demand of

society as a whole for farm products. At the same time, they also have the goal of deriving net incomes from the sale of commodity products in order to enliven the rural economy and make the peasants wealthy. Generally speaking, the industries and services in third-level industrial structure belong to commodity farm product production and services industries (it is hard to deny that one activity of rural and small town industries is direct provision of commodity industrial products; we are concerned here with the majority of them). The direct goal of their production activities is not direct production of commodity products, but is to serve the production of commodity farm products, as is evident in the processing of commodity farm products, the provision of production materials and equipment, and the provision of various types of pre-production, production and post-production services. They do, of course, increase the value of commodity farm products during the service process. They cause agriculture to throw off the unfavorable position of simply providing raw materials and make the rural areas wealthier.

Commodity production is the foundation and prerequisite of these two categories of industries. Service industries are their guarantee. Without the former, the latter would have no source, so neither of them can be neglected. Generally speaking, there first must be substantial development of commodity production industries before it is possible to have developed commodity service industries. The reserve is true as well. Without the guarantees and corresponding development of the latter, the former existing alone would wither away in the lack of services.

People at the present time do not clearly understand, making it easy for the following two types of errors to appear frequently:

1. Only seeing the high profits of rural and small town industries and "no wealth without industry," so that all wealth is put into rural and small town industries. People think only of building large industrial projects quickly while treating cash crops, forestry, animal husbandry, sideline production, fisheries and other commodity production then in a position where their importance is ignored. This is very wrong. In the future, although the value of output and the personnel in the rural economy that are accounted for by rural and small town industries may be absolutely superior, agriculture's position as the foundation will never change. Without highly-developed commodity agricultural production industries, rural and small town industries also would be unable to develop.

2. Only seeing service industries as a guarantee of commodity production industries, which leads to the spoiling of things with excessive enthusiasm, a failure to consider the scale and speed of development of commodity production industries, and superficial and artificially-accelerated service industries, the result being the withering of service industries because of the lack of targets for their service. This also is incorrect. If we are anxious to develop service industries, we first of all must focus our enthusiasm on the development of commodity production industries and build a firm basis to create the prerequisites for rapid development of service industries.

Second, there are inherent relationships among the three industrial structures in rural areas that cannot be changed by the will of man. This ensures an objective foundation for a developmental model for industrial structures that is particularly Chinese.

As mentioned above, readjustments in first-level industrial structures affect only the relationship between grain and cash crops. The investments needed to increase cash crops are not much larger than those for grain crops, but the benefits are obvious. Income per mu generally can be increased by 50 to 100 percent and the results can be seen during the same year. This makes it fairly easy to readjust first-level industrial structures. It requires only that grain yields and output be increased, that the internal needs of rural areas be satisfied and that there is a surplus after requisition tasks are satisfied. Readjustments can then be undertaken.

Readjustment of second-level industrial structures is more complex. Forestry and animal husbandry both are carried on over a period of years, involve large investments that take a long time to recover, are very dangerous, have high technical requirements, and necessitate the coordinated development of service departments (supplies of seeds, seedlings and breeding stock, technical services, product storage, processing and sales service, etc.). If they are managed according to the rules and have appropriate technologies, however, they can receive incomes over the long run that are much higher than cash crops. We can see that readjustment of second-level industrial structures is slightly harder than first-level ones, but that they also are a bit more beneficial.

The core of readjustments in third-level industrial structures is the development of rural and small town industries and service industries. These industries often require higher technologies, more expensive equipment, and more capital, and they require the establishment of multi-faceted relationships with outside markets (including information, commodity circulation, technical exchanges and so on). We can see this is somewhat more difficult than readjustment of first-level and second-level industrial structures. The profit ratios on capital and labor productivity in these industries are higher than in first-level and second-level industries, and their incomes are higher. Their proportion in the rural economy is one of the primary indices for evaluating the level of modernization of the rural economy.

The development of rural commodity production that we often speak of is in the final analysis the comprehensive development of cash crops, forestry, animal husbandry, sideline production, fisheries, as well as rural and small town industries and service industries in conjunction with the development of grain production. This is the inevitable resting place of readjustments in industrial structures in rural areas. Because these industrial departments have the special characteristics and inherent regularities among themselves described above, however, their development involves a sequence. They cannot be developed all at once. Generally speaking, we must begin with readjustment of first-level industrial structures, gradually create the capital, resource and technical conditions and then undertake readjustment of second-level industrial structures. Readjustments in second-level industrial structures

provide the capital, raw materials and technical conditions for readjustment of third-level industrial structures. Only when the conditions have been prepared to this extent do the melons of readjustment of third-level industrial structures become ripe for the plucking.

Of course, this is the general pattern in the industrial structures of rural areas. We cannot deny that, on the national scale, there are regions with special conditions that enable them to skip over stages during readjustments of industrial structures. An example is a region where rural industries historically have been fairly developed or the suburbs of cities. They can undertake readjustments of third-level industrial structures before readjustment of third-level and second-level industrial structures has been achieved. Or, economically backward regions can establish processing industries to promote readjustment of first-level and second-level industrial structures.

The rural areas of China bear an overall resemblance to Luancheng at the present time. The steps taken in readjustment of first-level industrial structures have been fairly large ones and the results are obvious. This is the basis for the substantial increases in output of cotton, oil-bearing crops, fiber crops and tobacco in recent years in China. Readjustments in second-level industrial structures now have begun but they have not yet been developed comprehensively. Readjustment of third-level industrial structures is being carried out only in a very scattered manner and we can state that it has not yet formally begun in a systematic way. Recognition of the extreme importance of this point can aid us in conscious efforts for comprehensive development of work for readjustment of second-level industrial structures and make full preparations for readjustment of third-level industrial structures.

Third, what should be selected as the primary direction for readjustment of second-level industrial structures? Conditions vary from place to place, so it is quite hard to have a single program. According to our survey of Luancheng and other grain-producing regions of the North China Plain, however, we feel that the focus in this area should be placed on grazing animals and fruit orchards.

The traditional perspective has been that the development of animal husbandry in the plains region should involve only the raising of pigs and that forestry involved only the widespread planting of trees. There was only limited potential for both, so there was no real hope for developing these two production departments. It seems that this is wrong.

1. Forestry. The widespread planting of trees is of course extremely important for development of forestry in the plains regions, but we now must give serious consideration to gradually squeezing out cultivated land each year to develop fruit production. Orchards and other horticultural crops as a proportion of cultivated land area is an index of the level of economic development in rural areas. Under conditions where the available grain per capita has reached 800 jin, we should take a long-rate view and remove a certain proportion of cultivated land each year under conditions where the amount of grain available does not drop to develop fruit production.

We should do conscientious research on the interplanting of trees and grain in grain fields. This is something that has received popular attention only in recent years. According to our understanding of the Shanxi Basin, the Juang-Huai-Hai river basins of Henan and the plains of Hebei, there is a great future for development of forests and grain. Usually, four paulownia trees can be planted per mu, and each tree can provide 10 to 15 yuan of economic income per year, which is 40 to 60 yuan per mu. With an average of 2 mu of cultivated land per person in rural areas, the income from this item would be 80 to 120 or more yuan, equal to one-third of the national average per capita income of 309 yuan in 1983. According to estimates for Yanyang County in Henan, the interplanting of grain and paulownia, widespread planting of trees and the development of orchards could permit the maintenance of a 27 percent forest cover rate in the plains region.

Interplanting of trees and grain also provides an excellent ecological environment in plains regions. According to estimates, the interplanting of paulownia and grain under conditions of intense light can reduce light absorption in crops, reduce wind speeds by 42 to 55 percent, and reduce the danger of hot winds in the North China area. It can reduce the evaporation of moisture by 42.6 to 50 percent and raise relative humidity by 8 to 29 percent. The dry branches and fallen leaves also are a highly effective fertilizer. With the exception of slight decreases in output due to the shading of fall crops, interplanting of trees and grain, if we include wheat, not only does not decrease output of grain crops, but unit area yields and total output can actually increase. With a forest coverage rate of 20 to 25 percent, there would be a major improvement of the ecological environment in the plains region. Yuxian County in Henan has taken a pleasing step in this area.

2. Animal husbandry. Apart from the traditional raising of pigs and chickens in animal husbandry in the North China Plain, the development of pasture animals should become the order of the day.

In areas of the North China Plain with fairly good supplies of raw coal at the present time, the utilization rate of crop stalks in rural areas is very low, generally only 20 to 30 percent. Cattle raising, however, can make full use of all types of crop stalks and transform them into high-protein livestock products. Cattle are fairly easy to raise, have fewer contagious diseases and need only modest fencing arrangements. The large amount of manure they supply also is an excellent organic fertilizer for grain production departments. They play an extremely important role in improving the ecology of farmland and improving production in some cropping departments.

Cattle raising at the present time by peasant families is solely for draft animal purposes. The cattle are small in size, take long periods to raise, and dress out with only low amounts of poor quality meat. Raising cattle in this manner is a waste of money. We should shift over to raising commodity cattle in the future. First, we should carry out improved breeding of varieties, import improved varieties to crossbreed with local varieties and develop new hybrid varieties that can tolerate coarse feeds with high output in order to

improve the economic results of raising them. Second, we should solve problems of importing fodder crops for cropping in the area of feeds. In summary, under conditions of absolutely no decline in total grain output, we should implement rotation of grains and grass and place animal husbandry production on a firm foundation of feeds as a basis for establishing a form of agricultural production that involves agricultural and animal husbandry.

If every family focuses on developing fruits, interplanting trees and grain, and the breeding of pasture animals, it will play an enormous role in quick motivation of readjustment of second-level industrial structures in the plains regions. This not only will solidify the results already achieved in readjustment of first-level industrial structures and further promote their development. At the same time, this also will create the conditions for readjustment of third-level industrial structures.

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CSO: 4007/279

HEBEI

BRIEFS

AGRICULTURAL YIELDS RANK IN FOREFRONT OF NATION--The responsible comrade of the provincial agriculture department told the reporter that in 1984 the total yield of grain, cotton and oil material and the gross revenues of town and township enterprises in our province ranked in the forefront of the nation; but some indices are still falling behind or below the national average. Our rankings in various indices among the provinces, municipalities and autonomous regions nationwide were as follows: total grain yield, 9th with a growth rate of 24th; total cotton yield, 2d with a growth rate of 6th; total oil material yield, 6th with a growth rate of 6th; gross revenues of town and township enterprises, 7th with a growth rate of 4th; total yield of the farm reclamation system, 11th with profits ranked 8th; number of agricultural technique multiple service companies at county level, 1st. The examination and evaluation of agricultural technicians stood in the forefront of the nation. The construction of agricultural technique promotion centers at county level placed below the national average. The training in techniques was ordinary compared with other parts of the nation. New technique-promotion items fell behind other provinces and autonomous regions. Hebei initiated the wheatfield planting technique "dual-use film mulching", but the promotion pace lagged behind Shandong Province. Our province undertook national "two miscellaneous" grain crop selective reproduction of seeds and potatoes, both ranking first in both in the nation. Unranked second in total volume of seed buildup, third in profits. Hebei also had the greatest corn seed overstock in the country. [Text] [Shijiazhuang HEBEI RIBAO in Chinese 20 Feb 85 p 1] 12756

CSO: 4007/266

HEILONGJIANG

RECENT DAIRY DEVELOPMENTS DETAILED

Dairy Development Urged

Harbin HEILONGJIANG RIBAO in Chinese 19 Jan 85 p 2

[Article by Li Weicheng][2621 4850 2052], vice department head of the Provincial Light Industry Department: "Develop the Dairy Industry To Benefit the People"]

[Text] Since the 3d Plenum of the 11th CPC Central Committee, the development of dairying in Heilongjiang has been rapid, and satisfactory results have been achieved, preliminarily, with its superiority in production and technology leading all provinces and municipalities of the nation. Its bright prospects for future development are most encouraging.

Heilongjiang is covered by a vast expanse of steppe. The high quality of grass is beneficial to production of dairy products. Although satisfying results have been achieved in recent years, we still fall far short of the party Central Committee's expectations. Compared with the world's advanced levels, we remain in the preliminary stage. On the average, there is one dairy cow for every 20 persons in the world, but in our province, the ratio is to 300. In the advanced countries, milk production per cow averages 5 to 7 tons; in our province, it is 3.5 tons. The consumption of milk per capita averaged 106 kg in the world; it is about 13 kg in Heilongjiang. In our province, the number of livestock raised per 100 mu of steppe is low. The head of cattle per unit in Belgium, the Netherlands and West Germany averages 21.8; in our province it is 4.64. In output of livestock product per labor force, the average milk production in the United States, Japan and the world is 26,000, 900, and 572 kg, respectively; in our province, it is very little. We have lagged far behind, thus indicating that our potential is great.

With the readjustment in the agricultural structure, the development of the raising of dairy cattle will even be more rapid. With the peasants' improved standard of living, the food structure is undergoing changes. The overall diet of the urban population has changed from the former

demand for "having enough food" to have good food. The consumption of dairy products is increasing year after year, thus providing a large market for dairying. If our work could catch up, our province's dairying would develop at a faster rate.

1. An open policy should be implemented, importing capital, equipment and technology, as a basic channel for the development of dairying. The Heilongjiang Dairy Factory was built with imported capital, equipment and technology. Fuyu Dairy Factory is conducting technology talks with Denmark, which will build China's first butter manufacturing factory for our nation. In addition, the Heilongjiang Dairy Technology Training Center has been under construction with Danish aid. It is our nation's first speciality school for training professionals in dairy industry. The national dairy information center and inspection and test center are also located there. It plays a positive role in stimulating provincial and nationwide development and scientific research in dairying. At present, we are conducting talks with Switzerland, the United States, Japan, and others about economic and technological cooperation based on such items as infant powdered milk, goat milk, cheese, sterilized milk, ice cream, etc. Some of them have signed contracts of intent. As for dairy equipment manufacturing talks are being held with Denmark on the import of technical software to enhance the modernization of our facilities. Practice has shown that implementation of the open door policy and foreign imports have prompted our province's dairying to form a complete system for production to plant, from scientific research to schools and from varieties to quality at a relatively quick pace. These are also major measures that are up to modern standards.

2. The varieties of dairy products should be increased, and development should trend toward series production and diversification. At present, powdered milk is our province's major dairy product, and most of it, over 90 percent of output, is sugar-added. Although there are other products, such as cheese, yogurt and butter, quantities are small and development is slow. The development of the world's fermented dairy products is very rapid, with numerous varieties and large production. Based on the analysis of the trends of our nation's market development, there will be a fairly considerable increase in fermented dairy products. The proportions of powdered skim milk and powdered full cream milk should be increased. It is necessary to increase variety, e.g., sterilized milk, yogurt, milk with flavors, dairy beverages, etc., that are suitable and demanded in the cities and industrial and mining areas. In addition, serial production products needed for the growth and development of infants at various ages should be enthusiastically developed. Various kinds of milk and dairy products suitable for students' school meals and the needs of the aged should be developed. Based on the individual's financial conditions, various kinds of powdered mixes using milk as the base should be manufactured and produced, e.g., bean powdered milk, high-protein powdered milk, etc. It is also necessary to produce dairy products that are specially used in the food-processing industries, such as candy, pastry, beverages, and foods that require processing.

3. Intellectual investment should be implemented, and technical training should be run efficiently. It is necessary to use the provincial dairy technological development center as the base to set up a center for dairy research and training. Scientific research work in various areas should be stressed. The staff and workers on the dairy industrial front should be trained in shifts so as to enhance technological quality. Professional technicians of high and middle level should be specially trained.

Cooperation with colleges and universities should be further developed, strengthening technological cooperation with the Northeastern Agriculture College, Qiqihar Light Industry College and the light industry colleges of Dalian, Tianjin, Wuxi, etc. Through various ways, more high-level technicians will be trained in our province.

4. It is necessary to strengthen the establishment of the milk base and to implement scientific management and breeding. An appropriate import of bulls from foreign countries is required, and it is necessary to popularize and promote frozen-sperm breeding, to stress the raising of Holstein dairy cattle and to improve cattle quality. In addition to developing dairy cattle, the improvement of oxen should be stressed. The fodder industry should also be developed vigorously so as to enhance the quality of compound feed. Newspapers, magazines, radio, television, science and educational films, popular books, etc. should be used to spread the breeding and operating technology of dairy cattle, to popularize the scientific knowledge of epidemic prevention and cure and to enhance the technological level of the large number of cattle-rearing households. Dairy cattle control stations should be set up in the counties and villages in order to stress epidemic prevention, breeding, fodder production and distribution, etc.

During the period of the Seventh 5-Year Plan, we must accelerate technological reform and centralize labor and materials in rebuilding and expanding the 10 key enterprises in Qiqihar City, Dornod Mongol Autonomous County, Shuangcheng, etc. so that the technology, varieties, quality, economic results and management of dairying will be raised to a new level in our province. By 1990, Heilongjiang's daily milk-handling capacity could reach 4,000 tons, increasing by 300 percent over 1985. The output of dairy products will reach 120,000 tons, a better than 3-fold increase over this year. By this time, we will dedicate ourselves more to the raising of the people's living and health standards and to the accumulation of capital for the four modernizations.

Heilongjiang Dairy Works Introduced

Harbin HEILONGJIANG RIBAO in Chinese 15 Jan 85 p 2

[Article: "Introducing Heilongjiang Dairy Works"]

[Text] Heilongjiang Dairy Works was constructed with foreign investment, and the complete set of technology and equipment came from Denmark. The plant has attained the advanced standards of the 1980's in the modern processing of dairy products.

The total investment in this plant amounted to over 50 million yuan. The major project was designed by Denmark. The layout is rational, and the model is stylish. The rest of the engineering work was completed domestically. The whole plant is completely equipped. The architecture is elegant and is in good taste, and the style is unique. In brief, this plant has 10 characteristics:

1. Its large scale: At present it is the largest dairy processing works in China. The scale is designed for processing 200 tons of fresh milk per day (this calculation is based upon two work shifts). The annual production of full cream instant powdered milk is 8,833 tons, and butter 146 tons. The plant covers an area of 91,000 m², and the total building area is 37,000 m².
2. The facilities are new. The plant's equipment consists of good-quality products selected from Denmark, Sweden, France, West Germany and the United States, bearing all the merits of the equipment from various countries.
3. Its technology is advanced, adopting the advanced milk-processing technology--process automation--of the 1980's. The milk is stored under low temperatures to preserve freshness. The standardization of milk is controlled by a microprocessor; the equipment is washed and rinsed continually.
4. Energy consumption is low. The five-effect evaporation method is adopted for the condensation of fresh milk. The ventilation system consists of a waste heat recycling system. The coal consumption per ton of milk is one-quarter that of the average domestic level.
5. Product quality is good. It is a completely enclosed processing system under antiseptic conditions. The surface of the powdered milk granule is sprayed and applied with lecithin, which has a good instant dissolving effect. The powder can dissolve in cold water instantly and is comparable to other famous brandname products in the world.
6. Packaging is scientific and hygienic, adopting the U.S. automatic packaging system with precise weighing and attractive packaging. The powdered milk iron cans are vacuumized and filled with nitrogen, which is good for long-term storage. The packaging of butter is divided into 15, 125, and 500 grams. It is convenient and hygienic.
7. Labor efficiency is high. There are 400 employees in the factory. The annual production of powdered milk per employee averaged 22 tons.
8. Economic returns are good. According to the designed capacity, the annual profit achieved is 11 million yuan.

9. Under the favorable terms offered by foreign investment, interest-free loans were provided by the Danish Government, and the payment period is as long as 25 years.

10. The construction rate was rapid, starting in October 1982 and finishing in October 1984. The construction period was one year shorter than projects of similar scale.

Dairying Trends Reported Brisk

Harbin HEILONGJIANG RIBAO in Chinese 19 Jan 85 p 2

[Text] The history of dairying in Heilongjiang is as old as that of the People's Republic of China. It has passed its infancy and is growing rapidly.

There were 7,200 dairy cattle in our province in 1949; last year, the number reached 203,000. Heilongjiang is the nation's major processor of Holstein dairy cattle and has the largest number of dairy cattle.

The annual milk production of the province reached 410,000 tons. The amount of milk intake per capita in the province was about 13 kg, first in the nation.

A certain foundation has been laid for improving our province's oxen. In 1984, there were 520,000 breeding cows, among which, the first, second and third generations of 280,000 cows were improved. The quantity is the largest in the nation.

Since the 3d Plenum of the 11th CPC Central Committee, the development of the dairy-processing industry has been rapid. The number of dairy factories increased from 34 to 105 in our province, which has the largest number of dairy factories in the nation.

In 1979, dairy production was over 10,000 tons; in 1984, it was 35,000 tons, occupying a quarter of the nation's gross production and ranking first in the nation.

Up to 1984, our province has manufactured 51 varieties of three-excellent products. Among those that were granted the national silver medal were Hongxing Brand's full cream, sugar-added powdered milk; Wandashan Brand's full cream, sweet powdered milk; Hongmei Brand's sweet condensed milk; Shuanggong Brand's infant powdered milk; Hongmei Brand's sugar-free powdered milk; Wandashan Brand's cocoa malt and milk extract and eight varieties of fortified malt and milk extract. In addition, the quality of the 11 varieties of the full cream, sugar-added powdered milk of Wanshoushan Brand, etc. were graded as excellent among light industry products. The quality of 31 products were graded as excellent among other provincial products. Three-excellent products made up one-third of the province's gross production, ranking first in the nation in terms of the output of excellent-quality products.

The dairy output of our province is large, most of its quality is good, and there are numerous varieties as well. There is a series of infant products and special-purpose products for the aged and manufactured products with curative effect. At present, there are 16 varieties of such products under regular production; the number of varieties is the largest in the nation.

Heilongjiang possesses a relatively strong technological corps in dairying, and there are the specialized dairy product research institute and the specialized dairy equipment plant. The dairy training center, which is under Danish aid, is at present under construction. A relatively complete dairy system including teaching, scientific research, equipment manufacturing, dairy processing, and so on has been formed in our province. Heilongjiang Province has become the nation's center for dairy technology and its industrial base for dairying.

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HEILONGJIANG

PAY ATTENTION TO RESEARCH ON HIGHLANDS

Harbin HEILONGJIANG RIBAO in Chinese 10 Feb 85 p 2

[Article by Tao Zhongxin [7118 0022 0207]: "We Must Emphasize Research and Development"]

[Text] In current production, developing and exploiting mountains in a rational way is significant both to accelerate mountainous area construction and whole economic development, and to keep and create a good ecological environment. Many nations throughout the world are gradually shifting their development focus, in knowledge and practice, from plains to highlands. Some nations have set up special organizations, enacted pertinent laws, and increased investment for mountainous area development. The exploitation of mountains has become a major task for study by mankind.

Mountains occupy over 235,000 km² and account for 51.5 percent of the entire territory of Heilongjiang. The area composed of Greater Xing'an Mountain, Lesser Xing'an Mountain and the eastern mountains (Zhangguangcai Mountain, Laoye Mountain and Wanda Mountain chain) is an important national lumber base and also the source of the tributaries of the Heilongjiang River, and is rich in water power. Besides, this area is latent in major mineral resources. Therefore, our province should pay more attention to the study and development of highlands.

The degree of depth and scope of mountain development depends on the extent of our research. A mountain is a gigantic dynamic system consisting of various factors. Thus, studying a mountain must emphasize comprehensive research on its wholeness and pay attention to probing the association of different layers and key elements as well as their regularity, while simultaneously researching the trend of its three-dimensional structures so as to prevent losses caused by unsuitable development measures. Owing to undue stress on "taking grain as a key" in the past, we neither considered a mountain's special structures and functions nor cared about preserving ecological balance when the developing progress went on; thus we ruined woods and grasses at will to reclaim wastelands and severely destroyed resources. This is a lesson we should bear in mind. For the sake of developing mountains, in short, it is essential to make polysubject, multilayer, systematic and comprehensive analysis and evaluation to explore developing directions for different types of mountain in order to work out a rational program.

The research work at the moment for mountain development in Heilongjiang is still weak. As soon as possible, we should consider setting up a mountain development research center, training professional personnel and initiating technical consulting services in order to gradually put an end to the backwardness of the highlands which are only used for growing grain and some simple utilizations for wild animals and plants; construct mountains as production bases for high-grade processing products, combine mountainous development with tourism promotion, and thus vitalize the economy of mountainous areas.

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HEILONGJIANG

DEVELOPMENT OF SOYBEAN FOOD INDUSTRY URGED

Harbin HEILONGJIANG RIBAO in Chinese 10 Feb 85 p 2

[Article by Tang Xinyuan [0781 2450 0337]: "Comprehensive Utilization of Soybean Resources in Heilongjiang"]

[Text] Our province is a major producing area of soybeans, accounting for around one-fourth of national yield. How to make full reasonable use of soybeans not only directly affects the people's livelihood but is of vital importance for improving the food and fodder industries.

At present, most soybean-processing factories in our province still use conventional methods to extract oil as the major product, ignoring the utilization of protein. After extraction, they do not further process the bean cakes and bean dregs which are 50 percent protein and immediately dispose of them as fodder. In many rural areas, soybeans are even used to feed horses. This is a tremendous extravagance. Due to crude equipment and backward technology, numerous processing factories for bean products can only exploit 50 percent of the protein composition in soybeans, the other 50 percent is lost as soya paste. According to statistics, about 200 million jin of soybeans are used to manufacture bean products every year in our province, the loss of soybean oil alone amounts to 20 million jin. Besides, owing to the high-temperature press and the lack of low-temperature dissolution facilities in leaching, a large portion of protein becomes denatured, limiting the multipurpose use of soybean.

For doing well in extensive utilization of soybean, it is necessary to develop mainly the production of plant protein from soybeans. While processing soybeans for extracting oil, try to get more high-grade dregs and use them to produce protein in order to promote the food and fodder industries.

Viewed from the demand trend, the soybean protein food industry is rising worldwide. Along with the development of the soybean protein food industry and fodder industry, the soybean dreg has become a major product in soybean processing production. Viewed from the promotion of animal husbandry, soybean protein may serve as excellent raw material for the fodder industry. A principal factor hindering the advancement of animal husbandry in our country is the insufficient supply of protein forage that has caused too high a

"ratio of fodder and meat" (a livehog needs five jin and six lian of fodder to gain weight a jin, a steer needs 60 jin of green grass to gain 1 jin of weight). On the one hand, unproportional nutrition components cause fodder to be squandered and raise costs; on the other hand, the fodders lack protein, consequently pigs grow slowly with less lean meat and more fat. The only way to raise the economic returns of animal husbandry, therefore, is to fully use plant protein and accelerate the development of compound, mixed and fine fodders. It is also a feasible way to give first place to promoting plant protein production in view of the economic returns.

There are two ways to promote the soybean protein food industry in our province: 1) Improve the bean curd and bean products which have traditional special flavors. Make great efforts to promote advanced oil-immersion technology and low-temperature solubility; at the same time, we must change oil-producing technology from using high-temperature presses to low-temperature presses in order to get dregs low in denatured protein as raw materials to make bean goods. Comparing bean curds made from cold-press bean cakes with those made from soybeans, their nutrition components are almost same; the former contains less oil, thus the taste is not quite as delicious. In order to keep good flavor, try to add an appropriate quantity of bean oil into soybean milk which made from cold-press bean cakes or low-temperature dissolved dregs to preserve the original flavor. 2) Promote the newly risen protein product industry. For example, use low-temperature dissolved dregs to produce nonfat bean powder, enriched soybean protein, separated soybean protein and expanded organic protein, etc. These processing products possess fine qualities. Some have been widely used in meat products, baked goods, milk products, soft drinks, baby foods and health foods. In the course of promoting soybean protein foods, we must proceed from actual conditions, however, considering their natures of nutrition, taste and economy as well as our people's habits and customs and market demand to conduct comprehensive analysis and evaluation; we should not carelessly go into operation -- particularly to the separated soybean protein, since although the content is high in separated protein, the technology is complex, equipment is not yet up to standards, and the production rate is also low. Therefore, to develop the separated protein industry is not as profitable as to develop the enriched protein industry at the moment.

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HEILONGJIANG

CITY, TOWN STRUCTURAL READJUSTMENT REVIEWED

Harbin HEILONGJIANG RIBAO in Chinese 10 Feb 85 p 2

[Article: "Some Tentative Points Concerning City, Town Structural Readjustment"]

[Text] There are now 1,161 cities and towns in Heilongjiang, of which 185 are integral towns [jianzhi zhen 1699 0455 6966] while 976 are market-town seats of township governments. According to 1983 statistics, Heilongjiang's city and town population totaled 14.17 million or 43.2 percent of the total provincial population.

Agriculture occupies an important place in Heilongjiang's overall economy, with 60 percent of our cities and towns relying on agriculture or agricultural sideline industries as their chief economic activities. However, although our province is rich in natural resources, we lag behind in the development of processing, and especially multiple processing, industries. As a result, the towns and cities that rely on these industries account for only 30 percent of all towns and cities. In terms of distribution, there are about 100 integral towns along the railway lines and another 30 towns or more that have developed along the Songhua Jiang. As to the sizes of these towns, the large ones each have a population of a hundred thousand or so, while the smaller towns may have populations of only 4,000 each.

In these variable circumstances, what strategy should we use for the economic development of our cities and towns? Here we will take a broad look from the structural aspect. I feel that the strategy for the economic development of the cities and towns in Heilongjiang should be a matter of "structural models." Therefore, within their economic development, the location, size and typology of the cities and towns will all be structurally coordinated.

1. Distribution structure: According to the prevailing situation, the layout of cities and towns is not rational, forming an empty "belt" alongside the railway lines. The distribution of new cities and towns from now on should move outward toward the hinterland. The planning of towns that are located away from railway lines should be based on the network system. In these planned systems, the large city will be the center of the network, and it will be linked in turn to surrounding cities, towns and townships. Based on these systems, we can let such cities as

Harbin Qiqihar, Mudanjiang and Jiamusi be the centers in networks of escalating degrees. For example, within a network, Harbin can be the center that is linked to such cities and towns as Shuangcheng, Acheng, Bayan, Hulan, Zhaodong, Zhaozhou, all of which are in turn linked to smaller cities and towns on their periphery, all forming an organic whole.

2. Mixture of scale: Heilongjiang's cities and towns in size. Thirty-three have populations greater than 50,000 each; 35 towns have more than 30,000; 43 towns have more than 10,000, and all the others are under 10,000. In order to build towns into the ideal sizes, we should aim at expanding the centers that are strategically situated within the economic, communications and transportation networks. For example, Shangzhi Town, located between Harbin and Mudanjiang City, should be developed, as should Tonghe Town between Harbin and Jiamusi city since it is situated centrally within the transportation system. In addition, Yilan Town is also favorably located for development. In the sparsely populated area of the Sanjiang Plain, the centrally located Fujin Town should also be considered. If this kind of planned development is carried out, then there will be an orderly model structure with rational linkages among all the cities and towns.

3. Typological structure: Among the cities and towns in Heilongjiang, those that rely on agriculture and natural resources are the most numerous. There are few different types and little flexibility for typological development. Therefore, in order to enable typology to keep up with other structural developments, we should pay great attention to developing goods and commodity production in our cities and towns, and also stimulate their circulation within society. As a result, cities and towns may change from their reliance on agriculture to mixed economies of agriculture, industry and commerce. In typology, these townships will, therefore, be more rational and more structurally complete.

In general, therefore, in the economic construction of the cities and towns of Heilongjiang, we should pay more attention to structural aspects. This is because only when towns and cities are linked together within structurally ordered networks can they act as important centers for the circulation of goods and commodities from rural areas.

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HEILONGJIANG

DEVELOPMENT OF SMALL CITY, TOWN GRAIN MARKETS URGED

Harbin HEILONGJIANG RIBAO in Chinese 18 Jan 85 p 2

[Article: "Grain Markets in Small Cities and Towns Await Immediate Development"]

[Text] In recent years, with the development of the rural economy, a large force of surplus labor has poured into the small cities and towns. In addition, the number of people going to the market has increased unprecedentedly, and the commerce of the market towns has been increasingly active, thus leading to changes in the supply and demand of products relying on foodgrains as their major raw material. Part of the grain ration of the people leaving the agricultural sector for the small cities and towns and the raw materials needed in the grain- and oil-processing industries are supplied by the foodgrain department. With the people's rising living standard in the market towns and rural areas, there is a demand for plentiful food, more food varieties, fine foods and good food. The development of the breeding industry in the rural areas has led to the demand for fodder supply, etc. To summarize, the small cities and towns are the foodgrain markets awaiting immediate development; their potential is tremendous.

In order to stress this task, first, it is necessary to break off former outdated restrictions and to switch the key point of foodgrain work in the small cities and towns from the former emphasis on control to an emphasis on management. The foodgrain business should make use of the favorable conditions offered by the business centers of the small cities and towns, should organize the circulation of grain products, and should strike a bargain by shipping and selling grain products to other provinces, counties and localities. The supply of grain products should be based upon the needs of the urban industrial population and the floating population, and joint operations between urban businesses and individual peasants should be developed.

Second, it is necessary to develop grain, edible oils and food production vigorously so as to satisfy market needs. Grain-, edible oil- and food-processing factories and mills should be set up to produce and diversify food varieties and to meet the masses' various needs.

Third, it is necessary to expand fodder production and to increase the marketing network outlets. Products should be made available and convenient for the masses, and the transformation of foodgrain should be expanded.

HEILONGJIANG

BRIEFS

NEW GRANARIES BUILT—State and local capital of 61 million yuan was invested in our province in building 264 new granaries with a storage capacity of 1.6 billion jin in 1984. Construction was completed by the end of November, and they were all ready for use. Due to the implementation of various methods such as investment contracting and bidding, the pace of construction was fast and the quality good. They were ready for use within the year of investment. Construction costs were lowered by 22 percent, and the modern brick or steel console silo of large diameter, which was suitable for efficient loading and unloading and for collecting, storing and transporting, was promoted. The grain loading rate was accelerated two-fold. [Text] [Harbin HEILONGJIANG RIBAO in Chinese 12 Jan 85] 12726

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HUNAN

AGRICULTURE IN DONGTING LAKE REGION

Beijing DILI ZHISHI [GEOGRAPHICAL KNOWLEDGE] in Chinese No 1, 7 Jan 85
pp 4-5, 13

[Article by He Yeheng [0149 2814 1854] and Sun Yunxian [1327 0061 0103]]

[Text] The Dongting Lake region (referred to hereafter as the lake region) is located in the northern part of Hunan Province. It includes 18 counties and cities and 15 state farms in the Dongting Lake Basin, the lakeshore plains and the rolling hills around the lake. It has a land area of 31,600 square kilometers and 13.32 million mu of cultivated land, including 9.84 million mu of paddy fields and 3.48 million mu of dry land. It has an agricultural population of 8.68 million. The area is one of the famous commodity grain and commodity freshwater fish base areas in China, and also is an area of concentrated cash cropping in Hunan Province.

I. An Abundant Variety of Agricultural Products

The farm crops in the lake region are characterized by a concentrated distribution, large output and high percentage of marketed products. Paddy rice is the predominant grain crop. Grain output was 11,807 billion jin in 1982, equal to 24.86 percent of the provincial total. The lake region completed construction of 118,203 mu of commodity fish base areas from the summer of 1979 to April of 1982. The area of completed and productive fish ponds increased from 24,269 mu in 1978 to 102,765 mu in 1982. Mature fish increased from 18,054 to 147,307 dan. The amount of fresh fish transferred to the state increased from 8,340 dan to 64,464 dan, and the percentage of marketed products reached 60 percent.

Besides grain and freshwater fish, the region holds important positions in the province and sometimes in the nation for cash crops. According to statistics for 1979 to 1981, annual cotton output averaged 1,409 million dan, equal to 70 percent of the provincial total, and the percentage of marketed products reached 98 percent. The average annual output of jute and bluish dogbane was 976,100 dan, equal to 96.44 percent of the provincial total. Ramie production averaged 218,800 dan per year, equal to 78.55 percent of the provincial total. Yuanjiang County produced more than 140,000 dan of ramie in 1981, about 40 percent of the provincial total and more than 25 percent of the national total. Silkworm cocoon output averaged more than

18,000 dan per year, equal to 46.2 percent of the provincial total. Sugarcane output averaged more than 26,000 tons per year, equal to more than 60 percent of the provincial total. The region also produced considerable amounts of rapeseed, tea, Hunan lotus, reeds, citrus and other products. It accounted for more than 40 percent of total reed output in China in 1981.

In summary, the lake region holds an important position in Hunan in output of grain, freshwater fish and cash crops. The relative wealth of agriculture in the region concerns not only the question of feeding the people but also affects the development of light industry in the entire province.

II. Superior Natural Conditions

The rich variety of farm products in the lake region cannot be separated from its superior natural conditions.

1. It has a level terrain, concentrated cultivated land and fertile soil, and it is suited to growing many varieties of crops. The center of the region is mainly a plain with rolling hills surrounding it, forming a dish-shaped basin. Besides the other smaller lake basins within the Dongting lake basin, there is a vast area of rivers and lakes formed by the three mouths on the Chang Jiang (Ouchi, Taiping and Songzi) and the deltas of four rivers (the Xiang, Zi, Yuan and Li rivers). The elevation primarily is less than 50 meters above sea level and the soil is mainly alluvial. It has the special characteristics of water and fertility conservation, "night tide [ye chao 1123 3390] and others. The parent material of the soil is lake sediments or fluvial and alluvial sediments, and it has good agricultural qualities. Paddy fields account for about 75 percent of the cultivated soil and dry land accounts for about 25 percent, which is suited to the development of paddy rice and various cash crops.

2. Sufficient light and heat supply excellent energy resource conditions for crop growth. The average yearly temperature for the region as a whole is 16.4° to 17° C and the frost-free period covers 258 to 275 days. The accumulated temperature $\geq 10^{\circ}$ C is 5,200° to 5,360° C and is maintained over a period of 230 to 245 days, which is suitable for the growth of paddy rice, cotton, hemp, mulberries, cane and other crops. However, the "three cold spells" (extended cold in the spring, autumn cold and dryness and the low temperature overcast period in May) have negative effects on crops.

The number of hours of sunshine and the amount of solar radiation in the region both are high in terms of the province as a whole. There are a total of 1,700 to 1,850 hours of sunshine each year and solar radiation is 105 to 122 kilocalories per square centimeter. July, August and September all have more than 200 hours of sunshine and 38.77 kilocalories of solar radiation per square centimeter. This is extremely beneficial for paddy rice, especially late rice, and for cotton, hemp, cane and other cash crop production.

3. A considerable amount of precipitation, abundant water resources. Annual precipitation in the region ranges from 1,200 to 1,300 mm, which can satisfy

the needs of paddy rice and many types of cash crops. Precipitation is characterized by higher amounts in the south of the region than in the north, more on the rolling hills around the edge and less on the central plains. Precipitation from April to September totals 800 to 1,000 mm. More than 50 percent of the yearly total falls from April to June, while July and August account for only 15 percent, which makes it easy for the appearance of drought to differing degrees in the rolling hills region around the lake. The terrain of the plains area is low and marshy, however, and a large amount of water comes in from the outside. Irrigation conditions are good. Added to the relatively moist soil and high relative atmospheric humidity (78 percent), there generally is no fear of drought. The peasants have a saying: "More water means less grain, less water means more grain." The reason is that a large amount of water coming in from outside easily causes disaster. Floods, waterlogging and underground water are the "three dangers" to agricultural production in the plains of the lake region.

4. Large land resources and a large area of islands. Information for 1942 indicates that the lake region had more than 4.06 million mu of fields protected by embankments. It increased by about 1.87 million mu during the 7 years from 1942 to 1949. By joining plots and embankments since the nation was founded, the area of embanked fields increased to 8.68 million mu. This was an increase of 2.75 million mu over 1949 and an average yearly increase of more than 90,000 mu.

5. The lake region had more than 2.68 million mu of islands in 1947, of which more than 490,000 mu were surrounded by embankments, so there actually were more than 2.19 million mu. Continual sedimentation in Dongting Lake has caused the area of islands to increase at a rate of more than 60,000 mu per year since the nation was founded. Island land is the forerunner of embanked fields. Although continued encirclement for reclamation was not permitted in 1979, the island land continues to expand.

III. A Long History of Agricultural Development

The rich variety of agricultural products in the lake region also is related to the long history of agricultural development there. According to archaeological excavations, agricultural activities were underway about 6,000 years ago. An example is the Daxi cultural stratum at Mengxi Sanyuangong in Li County. There are traces of decayed rice stalks and husks as well as a large heap of cow, pig and sheep bones and gan fish bones. This indicates that paddy rice planting was known at that time and that livestock raising as well as fishing and hunting occupied a substantial position.

The SHANHAI JING, WUZANGSHAN JING, ZHONGCI 12 JING states that "the trees of the mountains of Dongting (referring to Jun Shan) are mostly oranges and teak." Remnants of lotus and lotus root, muskmelons and other materials were found in the No 1 Chu tomb from the Warring States period that is 9 li from Li County. This shows that production of cash crops had begun more than 2,000 years ago in the lake region.

From the Eastern Han era through the Wei and Qin eras up to the Tang and Song dynasties, the continual warfare and destruction in the Huang He river basin in combination with the occurrence of drought, locusts, epidemics and other disasters caused the people of the region to move south of the Chang Jiang. A substantial part of the population came to the lake region. This changed the original situation here of "vast lands and few people" and also brought in advanced production technology and administrative and managerial experience that promoted agricultural development in the lake region. The national status of agriculture in the lake region became increasingly important.

The embanked fields in the lake region probably began at Fanbei (45 km northeast of modern Changde City) during the Eastern Han era. As we understand it, the work "bei" [7095-"pool"] in the name refers to the dykes built outside an area of water to contain it. The terms "zhang" [7140-"hinder", "block"], "wei" [0962-"dyke", "embankment"] and "yuan" [8219-"lakeside embankment"] all have the meaning of surrounding a lake to create fields. Protective lakeside embankments had developed to a considerable extent in the western part of the lake region by the Tang and Song eras. According to the XIN TANG SHU Geography Annals, there were several protective lakeside embankments covering several 100,000 mu of land in the area from modern Changde City to the West Dongting and Xihu State Farms at that time. Because of agricultural development, the JIU TANG SHU LIUYAN ZHI, the SONG SHI SHIHUO ZHI and other classical texts discuss grain from the Dongting Lake region that was transported by water to the capital. It already had become the material foundation for maintaining the political power of the Tang and Song dynasties.

By the Ming era, the saying "the lake is broad, the earth has enough" shows that there was a high percentage of marketed grain products in an area that includes today's Hunan and Hubei provinces, and it refers mainly to the Dongting Lake Plain and the Jiangnan Plain. By the early Qing era, grain from the lake region often gave material assistance to Jiangsu, Zhejiang, Guangdong, Guangxi, Hubei, Guizhou and other areas and a large amount of it also was shipped outside. Besides grain, the area was very famous during the Ming and Qing eras for sales of products to distant areas like fish to Jiangsu, Sichuan and other places, cotton to distant places like Guizhou, cotton cloth to Jiangsu, Zhejiang and other places, tea that was sold to the northwest and foreign countries, ramie, Hunan lotus and other goods.

IV. A Good Foundation of Capital Construction on Farmland

Although the lake region has excellent natural conditions and a long historical tradition, the increasingly severe sedimentation caused by the old semi-colonial and semi-feudal society led to frequent disastrous flooding and the stagnation of agricultural production. The party and government have treated dredging of the Jing Jiang (the section of the Chang Jiang between Zhicheng and Chenglingji) and Dongting Lake as an important matter since the nation was founded.

In the area of controlling the Jing Jiang, the Jing Jiang floodwater collection area was built in 1954 and work was done from 1967 to 1972 to

artificially straighten bends in the lower part of the Jing Jiang (the section of the river between Quchikou and Chenglingji). This shortened the channel by 80 kilometers and expanded the amount of discharge in the Jing Jiang. The results were obvious in both cases. In the area of controlling Dongting Lake, the number of embanked fields dropped from 993 to 330 following the blocking of tributaries and combining of flows and the construction of the Dawei [large dyke] project in 1952 and 1954 (there now are 266). The dyke lines were shortened from 6,400 kilometers to 3,725 kilometers. With additional reinforcement later, 250 cubic meters of earth were added per meter of dyke and the dykes were raised by 2 to 3 meters along their entirety. This exceeds that highest floodwater level since the founding of the nation by 1 to 2 meters and provides excellent conditions for construction of a commodity grain base area.

Electrically-powered drainage was established in the lake region during the 1960's and 1970's. This increased the area with guaranteed harvests despite drought or waterlogging from 2 million-plus mu in the 1950's to 6 million mu. Total grain output also increased from 2 billion-plus jin to 6 to 7 billion jin. There has been substantial construction of canal networks and orchards since 1969. More than 8,000 main canals and branch canals were dug covering more than 20,000 kilometers. More than 30,000 bridges and floodgates were repaired or built. Nearly all protective lakeside embankments have been linked up with the canal network, and more than 6.3 million mu of farmland has been turned into orchards. Total grain output reached 9 billion jin. Construction of the canal work and the development of orchards also led to substantial development of highways and forestry in the embankment region. More than 500 million trees now have been planted in the "four alongsides" (along canals, roads, buildings and dykes), an average of about 100 trees per person. Today's 800 li Dongting Lake now has a widespread canal network, large fields and many rows of trees. Every family has enough cereal grain. A new atmosphere of new socialist rural areas has been formed here.

The state has invested 570 million yuan in the past 30 years (1949 to 1980) for farmland water conservancy construction in the lake region, an average of 66 yuan per mu. The lake region has sold a total of 16 billion jin of commodity grain (rice) valued at 2.4 billion jin to the state since 1964, which is 4.2 times the amount of state investments in water conservancy in the lake region. The amount of farm and sideline products sold each year will grow as production develops. According to incomplete statistics, more than 540 million yuan in value of primary products like grain, cotton, fiber crops, oil-bearing crops, sugar, fish, pigs, reeds and others have been sold to the state each year since 1979.

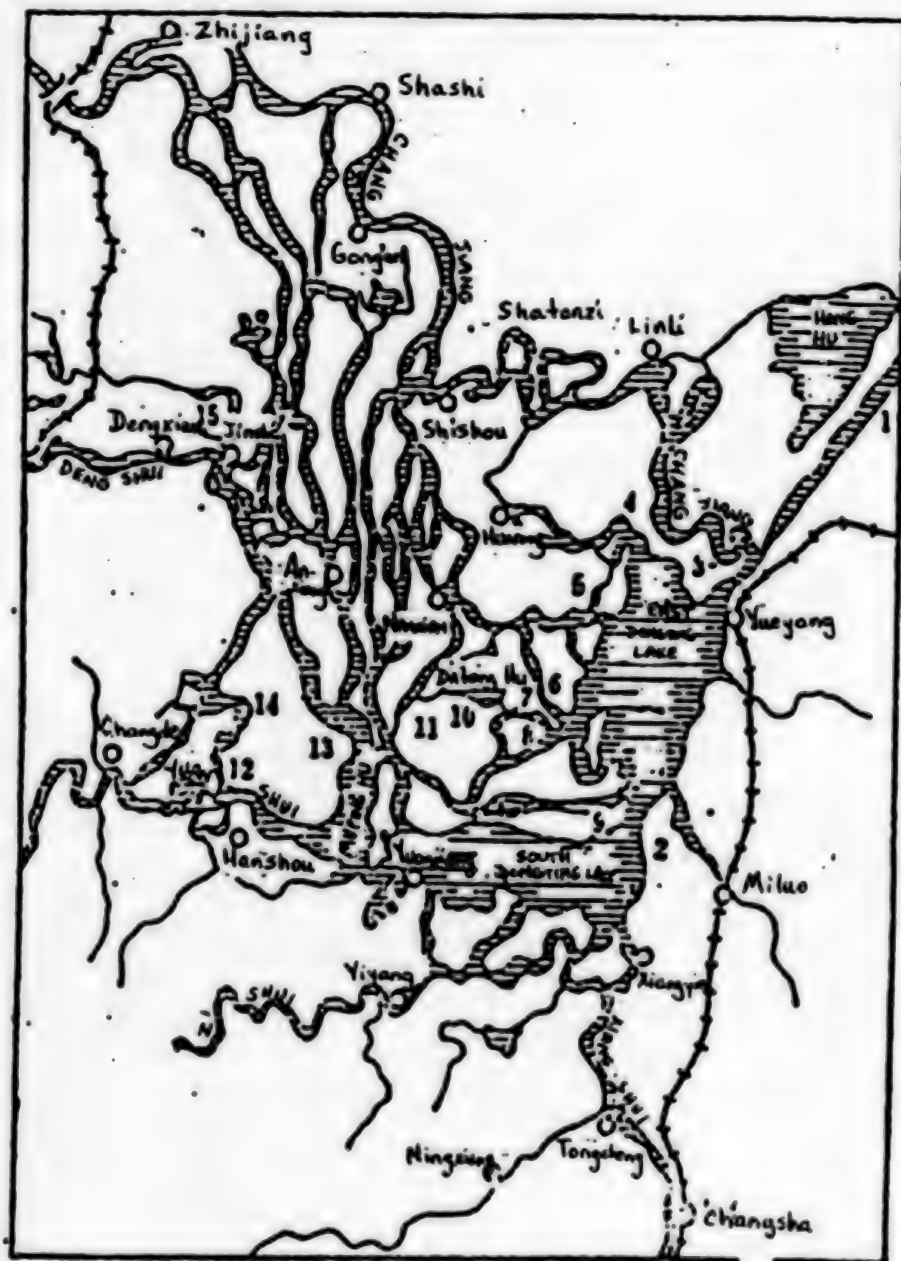
V. Accelerating Agricultural Construction in the Lake Region

The lake region is a valuable piece of land. Agricultural construction in the lake region should focus on development of grain production, actively develop the diversified economy and construct an agricultural base area for comprehensive development of agriculture, industry and commerce.

The lake region is one of China's commodity grain base areas and has been included as a key state construction project for agricultural construction

in the nation's Sixth 5-Year Plan. Of the first group of 50 counties and cities in commodity grain base areas nationwide, six are within the lake region (Changde, Anxiang, Yiyang, Yuanjiang and Huarong Counties and Yueyang City). The state has provided enormous investments to build them into model areas. There are many routes for accelerating agricultural construction in the lake region, but the key still is to focus on flood prevention and drainage of waterlogging because they are the basic guarantees of all other work.

Map of the Dongting Lake Region



- Key:
- | | |
|----------------------------|-----------------------------|
| 1. Huanggai Hu state farm | 8. Jinpan state farm |
| 2. Quyuan state farm | 9. Chapan Zhou state farm |
| 3. Junshan state farm | 10. Nanwan Hu state farm |
| 4. Jianxin state farm | 11. Qianshanhong state farm |
| 5. Qianliang Hu state farm | 12. Hejiashan state farm |
| 6. Beizhouzi state farm | 13. Xi Hu state farm |
| 7. Datong Hu state farm | 14. Xidongting state farm |
| | 15. Cenju state farm |

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AGRICULTURAL SPECIALIZATION DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese
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[Article by Liu Guangyu [0491 0342 3768], Song Peiqin [1345 0160 3830], Ma Kangpin [7456 1660 6302] and Bao Zongshun [0545 1350 7311] of the Jiangsu Province Academy of Sciences Agricultural Modernization Research Institute: "A Discussion of Problems of Specialization and Socialization of Agricultural Production in the Economically-Developed Areas of Jiangsu"]

[Text] Specialization and socialization of production in the agricultural sphere has developed rather quickly during the process of implementing household contractual responsibility systems in the four prefectures of Suzhou, Wuxi, Changzhou and Nantong in the regions of Jiangsu Province with fairly developed rural economies. They also had their own characteristics and needs during the process of development. For this reason, we must analyze their different characteristics and understand their developmental trends. This article will discuss some questions in this area.

I. The Current Situation in the Specialization of Agricultural Production in the Economically-Developed Regions of Jiangsu Province

A. Specialized grain and cotton households make up a very small proportion. The great majority of specialized cropping households were formed by contracting the cultivated land they originally had. According to incomplete statistics from December 1983, specialized households in the suburban counties of Suzhou, Wuxi, Changzhou and Nantong prefectures accounted for 8.6 percent, 9.1 percent, 12 percent and 9 percent of the total number of peasant household in each of the prefectures, respectively. Most were formed primarily from cropping other than grain or cotton production, breeding, processing, shipping or other activities. The proportion of specialized grain and cotton households is very small. In relative terms, Kunshan County, which is in the Yangdeng-Dian-Mao lakes region, has a smaller population and more land. Industry and sideline production is not too developed there, and the region is one where grain production occupies the primary position in cropping. Less than 5.8 percent of all peasant households are specialized grain households who have assumed contractual responsibility for 15 mu of land or more. In Wuxian County, specialized grain households account for only 1.4 percent. The proportion of specialized cotton households also is quite low in all the counties.

in Nantong Prefecture. Most of the specialized grain and cotton households were formed by larger families that had more labor power on the basis of the land they originally had contracted for.

B. The appearance of large numbers of specialized households in non-agricultural activities has led to rapid development of the rural economy. If we use an index of 100 for the total value of output from forestry, animal husbandry, sideline production (not including brigade-run industries) and fisheries in the 13 counties and cities of the Taihu Lake region of Jiangsu in 1980 (based on constant 1980 prices--same below), the figure had grown to 169.8 in 1982 and 181.2 in 1983. The development of these specialized households has played a major role in overall growth of the rural economy. They are the core of specialized commodity production and a transitional form for the movement toward specialization and socialization in rural areas and achievement of agricultural modernization. The inadequate natural resources (land) and the large population and labor force of these areas has caused most peasants to become dissatisfied with depending on assuming contractual responsibility for a small amount of land with low economic results. The close economic links between cities and rural areas in these regions and the relatively developed trade-type agriculture and rural processing industries has led them to open up multiple routes of production administration to increase their incomes. This in turn provided an outlet for some of the surplus labor power in rural areas and also promoted the readjustment of the economic structure of agriculture to a higher degree of comprehensiveness.

C. New economic associations have played a major role in achieving specialization of production. Large numbers of specialized households have appeared in these regions, but single-household management of some activities and lines (boat shipping, construction, etc.) makes it difficult to avoid restrictions on labor power, capital, technology, information and other factors. This made integration of all the factors of production in these areas essential for developing joint administration of production. New types of economic associations appeared as a result. Economic associations usually appeared at the same time as specialized households, although some developed in a situation where specialized households could not perform the tasks. All the economic associations at present are involved in sideline production, shipping, construction and processing activities. There was no real need for such associations of peasants for grain and cotton production. There are three overall situations in the associations in terms of their degree of intensity. The first situation is based on contractual responsibility by households that use joint administration. The time period of contractual responsibility is used as the time period for joint administration, with simple internal accounting and calculation of investments, labor inputs, distribution and other things. There are many lines of economic diversification for short-term production in these associations. The second situation is using natural forms after contractual responsibility for output quotas to form the associations. An example is the use of farm boats for shipping, which requires at least two or three people to handle. Several households may form associations to assume contractual responsibility for breeding activities on large areas of water. The third situation is using management households as the core to organize relatively intensive associations with a rational internal division of labor.

Management personnel are elected democratically. They practice independent management and accounting, distribute shares according to inputs of capital, labor and technology, retain a certain portion as public accumulation funds and have a certain amount of fixed assets. These associations are found mainly in such areas as construction, processing and so on. Participation in the associations is not limited to local people. Some are from other townships, counties or provinces. Economic associations can integrate the peasants on the basis of voluntarism and mutual benefit to break through the old patterns of "three levels of ownership, the production team as the foundation" to establish a new cooperative economy. The inherent need for and strong vitality of joint administration in the economically-developed regions is an inevitable trend in the multiple flows and multiple forms of organization for the forces and factors of production in rural areas.

The appearance of large numbers of specialized households and economic associations was the preparation for the gradual development of agricultural production in the economically-developed regions in the direction of specialization, socialization and intensification of management. Commodity production has grown substantially and a large amount of surplus labor power has been absorbed. Many specialized teams (villages) and specialized townships have appeared under the lead of specialized households and economic associations. All of this provides a basis for the party and government to make further improvements and formulate rural economic policies and agricultural technology policies, and for readjustment of the economic structure of agriculture and rural systems.

D. Dual-activity administration is a common characteristic of the economically-developed regions at the present time. Most households among the large numbers of specialized households and the peasant households that participate in economic associations are dual-activity households. Some of these dual-activity households concentrate on agriculture (cropping) in combination with sideline production. Some concentrate on sideline production in combination with agriculture (with their primary labor power involved in sideline production and auxiliary labor power in agriculture). Or some may concentrate on industry (commune and brigade-run factories) in combination with agriculture. A very small number of specialized households have left agriculture completely or are peasant households who have left agriculture to participate in non-agricultural economic associations. This phenomenon appeared as a result of the fact that the agricultural economy in the economically-developed regions has taken the route of comprehensive development and comprehensive administration, the rather large income differentials between the activities and the distribution of grain and cotton requisition tasks to each peasant household. This inevitably will influence the specialization and socialization of agricultural production on a large scale. Therefore, when the conditions have been prepared, land should become more concentrated for gradual development of associations of specialized agricultural households focused on grain and cotton production. In some economic diversification projects, however, scattered and dynamic household administration and associations should be developed according to the location, personnel, capital and technology to supplement and perfect service systems. In the same way, they will be able to carry out specialization and socialization of production in these areas.

II. Some Problems in the Achievement of Specialization and Socialization of Cropping Production in the Economically-Developed Regions of Jiangsu

A. Specialized grain and cotton households and associations account for an extremely small proportion, and they are unable to form a substantial scale of management or attain benefits from the scale of management. After implementing systems to assign contractual responsibility to households, the basic situation was that "each person received a consumption grain field, each laborer received a responsibility field, and pigs were allocated feed fields." The land was distributed equally and in a scattered manner. In townships and villages with developed industry and sideline production, most peasant households are dual-activity households with their primary laborers engaged in industry and sideline production and auxiliary laborers engaged in farming. In townships and villages with fewer people and more land and where industry and sideline production are not too developed, most peasant households have contracted for more land. They concentrate primarily on cropping in combination with other activities. Their primary laborers are engaged in cropping and auxiliary laborers manage sideline production. Most of the large grain households that appeared under these two situations are managing the land they originally had contracted for. They were not formed through the transfer of land. Although a few of the households who left agriculture were willing to transfer their land, none of the peasant households under the above conditions was willing to accept land. The reason is that the primary laborers in farm families in areas with more people and less land where industry and sideline production are developed are working in rural and small township industries. They have stable incomes and manage a small amount of land. They can receive subsidies from industry profits to provide the "two guarantees" and plant crop with greater risk or those with lower economic results, and are satisfied with meeting requisition tasks and keeping sufficient consumption grain. The peasants in areas with fewer people and more land where industry and sideline production are not too developed feel that planting more increases the risk, requires more investments and provides lower results. Services for each link of production cannot keep pace and the entire process of production cannot be mechanized. The intensity of labor is great and labor productivity cannot be raised. They can only tie their labor power to the land and cannot take up industry and sideline production, which provide greater benefits. A rather long period of preparation is required, therefore, for relative concentration of rural land and expanding the scale of administration in cropping both in grain regions and in cotton regions. The main problems in creating the specific conditions for the transfer of land and responsibility and development of large numbers of specialized farming households and associations are:

1. The large number of laborers who have left agriculture (cropping) must find routes to non-agricultural employment with its greater income stability before they will be willing to transfer their land.
2. There is a trend toward a differential between the prices and values of farm products (especially grain). Those who accept land must receive the corresponding compensation for the amount of live labor they must expend, to the extent that their income in bumper harvest years should be slightly higher than laborers working in industry, before they will be willing to accept transferred land.

3. An inevitable requirement of expanding the scale of cropping management is an increased degree of mechanization and reduced labor intensity. The production conditions and production facilities (windrowers, drying grounds, drying equipment, warehouses, shipping, etc.) must be improved further if agricultural mechanization is to be raised to a higher level.

4. Service systems for each of the links in cropping production and circulation should be established quickly and perfected.

5. The state should provide policy assistance for further development of cropping (especially grain production) and encourage peasants with the proper conditions to transfer land.

There are problems related to the transfer of land. Peasant households that can leave agriculture under present conditions are willing only to transfer responsibility fields, not their consumption grain fields. The reasons are the heavy requisition tasks and low results for responsibility fields. Consumption grain fields can guarantee self-sufficiency in consumption grain and provide a source of straw for cooking. This certainly is not conducive to the specialization and socialization of cropping production or improvements in labor productivity. Developmental trends indicate that relative concentration of land in the future may be achieved in two steps. The first step is concentration of responsibility fields into the hands of skilled farmers to develop specialized commodity grain production. In the second step, consumption grain fields also are concentrated in the hands of skilled farmers to form socialized consumption grain production. We cannot eliminate some peasant households wishing to retain consumption grain fields or being unwilling even to transfer responsibility fields. When peasant families transfer their responsibility fields and enter non-agricultural production, they also may wish to handle private plots and a small amount of household sideline production.

B. Form a preliminary system of service organizations for specialization of cropping. When they began to implement systems of assigning contractual responsibility to households, these regions paid close attention to dealing with the contradiction between "decentralization" and "unification" within cropping and especially did quite a bit of work on developments in the area of "unification." "Unification" here does not refer to a continuation of the "unification" of the "big and public" [commune system] of the past. It is instead a "unification" of services for all production links in cropping. Many townships and villages established the following service systems during the process of resolving contradictions between "unification" and "decentralization":

1. Technical services for agriculture: Township agricultural technology extension service stations usually served as the center. A demonstration and extension network was formed of technical farming personnel in townships, villages, teams and demonstration households. They serve all the contractual responsibility households through training classes, broadcasts of discussions, printed materials, technical consulting, weather, disease and pest forecasting, applications of new technologies, imports of new products and other activities.

2. Water management services: Many of the townships and villages in the Taihu Lake Region have established water management service stations centered on power and irrigation stations. They organize water management personnel in the villages and teams to provide water supply and drainage services for farm families. They also use the village as a unit to organize water management personnel in production teams to establish water management service stations and develop service work.

3. Mechanical cultivation services: There are three types of situations. One situation uses the village as a unit to centralize agricultural machinery and tools and machine service personnel to establish mechanical cultivation teams (or groups) to serve farm families. The second situation is where individuals are given contractual responsibility for machinery and equipment. The collective sets wages and payments and established service tasks. The third situation is the sale of machinery and equipment at a discount to specialized mechanical cultivation households for individual management and development of services. Mechanical cultivation services should become an important link in cropping services.

4. Materials supply services: This mainly includes farm chemical and chemical fertilizer supplies. There are several supply patterns. One form retains the former channel of provision through supply and marketing cooperatives to serve the needs of scattered farm families and the establishment of additional supply points. The second form is the establishment of new township economic diversification service companies to organize administration. They establish village supply service stations in the villages and provide professional services. The third form is joint management of services by supply and marketing cooperatives and economic diversification service companies. The fourth form is supply of farm chemicals (especially toxic farm chemicals) for use by farm families after unified buying and selling, unified management and unified preparation by agricultural technology service groups.

5. Seed and seedling services: Some townships and villages have implemented collective seed retention and supply in order to guarantee the purity of primary crop varieties. They are selected from the plots of farm families. Some villages and teams have no seed warehouses. Some villages and teams in the Taihu Lake region with fairly good conditions have begun collective seedling raising indoors to supply farm families for planting. Seeds and seedling management use specialized production and socialized services.

6. Accounting services: Townships and villages have established accounting service stations to service farm families. Many townships and villages have developed their original multi-team accountants into specialized accounting to do accounting for agriculture, industry, economic diversification and cash payments and receipts. Accounting service work has become specialized.

These service organizations within cropping basically implement compensation for services and collect fees from peasant households. Some collect fees for actual amounts, but this increased the burden on farm families. The wages of the personnel of some service organizations are paid out of commune and

brigade industry profits. Fees are low and they have been welcomed somewhat. This actually is a form of "industry subsidizing agriculture." This form of "subsidizing agriculture" is "subsidizing" the expansion of production capacity and improvement of production conditions. It is more desirable than direct "subsidies" for the final product. Many villages and teams have changed service organizations into economic entities that focus on special services in combination with other auxiliary activities. They have greater abilities to be self-sufficient and lower fee collection standards. This reduces the burden on farm families as well as collective subsidies. An example is the combination of water management with management of fish ponds, or mechanical service teams that serve farm families during busy farming seasons and engage in shipping, repair, processing and such during slack farming seasons. Many township and small town supply and marketing cooperatives and industrial and commercial management departments and others have established farm trade markets and trade warehouses that play a substantial role in serving farm product circulation.

C. Strengthen service systems for the socialization of cropping, promote progress in the specialization of cropping. The various service systems directly related to cropping are in a stage of development and must be improved and perfected. An example is the idea among some service organization personnel who feel that the question is "who wants me to serve" instead of "I want to serve." Their work must be improved through ideological education and material remuneration. It is not hard to see, however, that these service systems have a fairly strong vitality and developmental future and that they are very attractive to farm families. The continual development of rural and small town industries, economic diversification and tertiary industries will absorb large amounts of surplus labor power. Added to the strong attraction of service systems, the result may be an acceleration of the pace of land concentration and the continual appearance of large farm households. A new developmental stage will be entered in specialization and socialization of cropping production and intensive administration. Some areas have not paid much attention to strengthening these service systems. This error should receive attention.

D. "Using industry to lead agriculture" is the formula for promoting specialization and socialization of cropping and reforms in rural economic systems. Some townships and small towns in Shazhou, Changshu, Jiangyin, Wuxi and other counties (and cities) where rural and small town industries are fairly developed have changed from the former practice of "using industry to subsidize agriculture" to one of "using industry to promote agriculture" and "using industry to lead agriculture." A substantial portion of the young and mature laborers in these areas have moved into rural and small town factories. The greatest part of those remaining in the fields are old people and children and middle-aged women. Most young and mature laborers do some farming when they are not working in industry and concentrate on agriculture during busy seasons. The result is that the locus of responsibility for guidance of agricultural production and for propaganda and education inevitably has shifted to rural and small town factories. The former role of production teams in directing production no longer exists. Moreover, rural and small town factories take agriculture as the foundation and carry out education in

agricultural science and technology. They focus on farming seasons and provide technical requirements for each link in production. At the same time, they have used subsidies from rural and small town enterprise profits to establish service organizations for mechanical cultivation, plant protection, water management and other service organizations. They have promoted the development of cropping in the direction of specialization and socialization. This method may be regarded as another new formula for reforms of rural economic management systems in these regions.

III. Developmental Trends in the Specialization and Socialization of Agricultural Production in the Economically-Developed Regions of Jiangsu

From a long-term macro view, the future developmental trends in the specialization and socialization of agricultural production in the economically-developed regions of Jiangsu are:

A. Development in the direction of an appropriate expansion in the scale of administration. One thing is that specialized households and associations are the foundation and managing families are the core. They further organize coordination and integration of labor power, capital and technology to manage production on a fairly large scale in order to gain greater economic results. The second aspect is that the attraction of social services has led to the development of specialized production on a fairly large scale. This developmental trend involves only some activities and products. Suitable expansion of the scale of administration occurs only on the foundation of multiple lines of production in a region. It cannot and need not resemble the developed countries with their smaller populations and greater amounts of land which are developing in the direction of large-scale regionalized production of a single product.

B. Development in the direction of intensive administration. Expansion in the scale of administration also cause changes in management patterns. Most specialized households or associations must develop gradually in the direction of moving from multiple activities to single activities that provide greater economic benefits according to societal demand and their own conditions. This of course requires a relative concentration of labor, capital and technology into primary activities and raises the question of intensive administration. Socioeconomic development and progress in science and technology also are continually creating the conditions for intensive administration.

C. Development in the direction of more intensive [or multiple] processing and comprehensive utilization of farm and sideline products. Intensive processing of farm and sideline products in the economically-developed regions to achieve multiple increases in their value is a new realm of production that should be opened up. It also is a developmental direction for specialized production. Haian County in Nantong Prefecture made full use of local farm and sideline product resources to develop the feed industry. They have increased the value of farm and sideline products through processing, encouraged rational integration of agriculture and animal husbandry, and formed preliminary benign ecological cycles and economic cycles. This is now receiving the attention of everyone. Miaogang Commune in Wujiang County

processes vegetables and sells the finished products in other areas. They have integrated the administration of agriculture, industry and commerce, and have achieved excellent economic results. The economic results of grain production in the Taihu Lake region are not high. If they are able to develop intensive processing of grain and integrate agriculture, industry and commerce to cause cropping to be extended in the direction of increased value through processing, then this will be a road to stimulation of stable development of cropping.

D. Development in the direction of insurance systems for certain specialized management projects. After further development of the new cooperative economy and specialized production in rural areas, the masses have called for implementation of somewhat restricted insurance systems for administration projects that involve risk to assure that they will not be in danger of loss. In the area of raising live pigs, some townships and villages in Haian County have moved from the foundation of the former cooperative and mutual assistance pattern of the "four guarantees and one subsidy" (after livestock veterinary departments collect a fee from a peasant household according to the number of livestock they have, they provide insurance for disease prevention, castration, diagnosis and medicines; farm families are compensated for their losses in cases of death due to disease) and now are developing in the direction of economic contractual responsibility systems with clear insurance systems. This form of integrated social services for live pig production with insurance systems will become a future trend of development in some lines of specialized production.

E. Development in the direction of a division of labor toward "leaving the soil but not the village" and "leaving the village without leaving one's native place" for rural labor. One aspect is that the economy of rural small towns will develop rapidly. This inevitably will lead to some of the rural labor force "leaving the soil but not the village" to enter the economy of small towns, or they even may enter large or medium-sized cities. Another aspect will be the organization of labor power to "leave the village without leaving one's native place." Many counties and townships in Suzhou, Wuxi, Changzhou and Nantong prefectures have organized large numbers of rural construction teams and labor with special skills to move to other areas within or outside the province or even outside the country. The rural areas of Nantong Prefecture have 34 large construction organizations in 1983 with a labor force of 130,000 persons. Most of them were shipped to Beijing, Shanghai, the northeast, Xinjiang, Yunnan, Guizhou, Hubei and other provinces and regions and to other areas of Jiangsu. The momentum of this shipping out of labor power will continue.

F. Development in the direction of socialization of services daily life. Comprehensive development of the rural economy is causing the people to pay greater attention to the value of labor and the value of time. They are demanding the provision of more social services for their daily lives to conserve labor time. Many peasants want small towns to open up more restaurants, more fast food shops and more projects to provide services to other areas of daily life. The peasants in some parts of the Taihu Lake region have a tradition of pickling and salting vegetables. They now feel that doing the

pickling themselves is inconvenient and uneconomical and are asking that stores supply more pickled vegetables. These trends indicate that there will be further associated developments in the area of socialization of services to daily life. This places new demands on the development of tertiary industries and specialization in tertiary industries.

G. Development of many forms and administrative channels for the socialization of services to production and daily life. The concurrent growth of service systems that are administered by the state, by cooperatives, by individuals and by various types of associations will lead to competition. We should allow the concurrent existence of many forms of service organizations and use multiple channels of socialized services to promote overall economic growth.

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NEI MONGGOL

AFFORESTATION STRUCTURE REFORMS DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 12, Dec 84 pp 36-38

[Article by Yue Xinglu [1471 5281 6922] of the Heilongjiang Province Forestry Cadre College: "On the Structural Reform of Afforestation in Northeastern Nei Monggol"]

[Text] I. The Urgency of Restoring and Expanding Forestry Resources

China has completed afforestation of an area of 1.59 billion mu since the founding of the nation, but the protected area is only 400-plus million mu, a protection rate of nearly 40 percent. China's afforested area during the Fifth Five-Year Plan was more than 6 million hectares less than during the Fourth Five-Year Plan. The forest cover rate dropped from 12.7 to 12 percent. In the eight provinces and regions where state-owned forests predominate, excluding Xizang and Nei Monggol, the afforested area in the six remaining provinces dropped from 77.19 million hectares during the Fourth Five-Year Plan to 75.32 million hectares during the Fifth Five-Year Plan, a reduction of 1.87 million hectares. Forest resources in the forested regions of Heilongjiang Province are undergoing gradual destruction. The tree line is regressing, the area is shrinking and reserves are declining. The forested area decreased by 780,000 hectares in the ten-year period between 1966 and 1976. In the newly-developed Daxing'anling Forest, the forested area had been reduced by 1.34 million hectares up to the end of 1981. Added to the fact that timber consumption in China has grown at 110 million cubic meters per year faster than timber growth, the ecological and economic benefits of state-owned forests have declined year after year. Without the appropriate countermeasures, production may cease in only about 20 years, enterprises will be in a crisis, and there also will be extreme danger for development of agriculture and animal husbandry. Increasing the afforested area, improving the forest protection rate and accelerating the pace of afforestation, therefore, have an important strategic position and the urgency of time. To achieve this strategy, we must combine consolidation and strengthening of spring afforestation with increased development of afforestation during the rainy season and the fall to achieve balanced afforestation during the spring, rainy and fall seasons.

II. The Restrictions of Afforesting Only During the Spring

First, the optimum survival period of spring afforestation is short and forest renewal tasks are at their maximum. The spring afforestation season occurs during the period of thawing and return to pulp. The nursery stock have not yet begun to sprout and survival is the easiest, but the optimum period of effective survival is only 15 to 20 days long. Calculating on the basis of each hectare producing 60 cubic meters of lumber, a forest that cuts 40,000 cubic meters per year must reforest about 10,000 mu each year to replace the area cut merely to have replacement keep pace with cutting. This includes no afforestation of barren hillsides. If 60,000 cubic meters are cut, the area to be reforested to replace the area cut would be 15,000 mu. It actually is impossible to reforest such a large area that has been cut clean through reliance on specialized labor to complete an annual afforestation plan during the optimum part of a single spring afforestation season. The result is that most forestry enterprises had relied for a long time on the afforestation method "a giant battle of 1,000 soldiers and 10,000 horses" to make attacks that are concentrated in time and in various activities and labor power. The seasonally-restricted nature of this sort of attack afforestation year after year has meant that afforestation in many forest enterprises still cannot keep pace with cutting. The protected area of the reforestation always hovers around 40 percent, which has caused continual declines in the forested area and timber reserves in forestry enterprises.

Second, there are major differences in the quality of afforestation between specialized labor and non-specialized labor, and between labor power from the forest itself and temporary assistance labor power from outside. The labor power from other sectors that participates temporarily will be different because of their ideology and understanding, their technical level and environmental conditions. Moreover, there is no way to organize them into integrated land levelling, afforestation and cultivation management activities and it is difficult to implement reliable afforestation responsibility systems for them, so the quality of afforestation is not guaranteed. A basic law has been formed in recent years: the quality of afforestation, survival rate and protection rates of specialized forest management households that are contractual responsibility households based on families occupies first place. Specialized afforestation teams ranked second. Afforestation by labor power from other activities in the forest itself was in third place. Afforestation by labor power that comes from outside to assist in afforestation is in fourth place. Afforestation by labor power from lowlands areas that went up the mountains was in last place.

Table 1. Comparative Quality of Afforestation by Type of Labor Power at the Beiguliu Forest

Category of afforestation labor power	Afforestation Quality (percent)	Survival Rate (percent)
Household contractual responsibility labor	99-100	95-98
Special team contractual responsibility labor	90-96	85-89
Non-specialized labor	85-89	80-85
Assistance labor from other forests	70-85	65-75
Assistance labor from lowland areas	60-70	50-60

Explanation:

1. This table was compiled from average yearly afforestation quality from 1972 to 1982 (years for which data were not available were excluded).
2. Non-specialized afforestation labor on the farm itself includes a comprehensive average of inspection and repair, physical plant, comprehensive administration, economic diversification, cutting and so on as well as schools.
3. Labor from other farms and assistance from lowland areas both are comprehensive averages of labor power engaged in various activities and students.
4. A few units which provide labor from outside and the farm itself counter an excessively low survival rate with specialized afforestation labor power for replanting or reforestation.

Third, there is also a substantial difference in the quality of afforestation between afforestation at appropriate times and afforestation over an extended period. If all of a year's afforestation tasks are concentrated during the spring seasons, then completion of the specified afforestation tasks necessitates the extension of the afforestation period so that it often exceeds the optimum survival period for spring afforestation. Late spring afforestation occurs when the period of the soil returning to the pulp has passed and the nursery stock have begun to sprout. If we fail to enforce tasks during this period the survival rates and protection rates will not be ideal. Extension of the spring afforestation season itself, therefore, cannot guarantee sapling survival rates.

III. The Advantages of Three-Season Afforestation During the Spring, Rainy and Fall Seasons

Practice in afforestation and the biology of nursery stock in all areas have proven that there not only is an optimum survival period for forests during the spring season, but also that there are optimum survival periods during the rainy and fall seasons. By changing from single-season afforestation during the spring to three-season afforestation during the spring, rainy and fall seasons, utilizing the three optimum survival periods for afforestation, adopting specialized afforestation and balancing production, we can do more afforestation and also raise the survival rate and protection rate of afforestation. This is of enormous strategic significance for faster afforestation, expansion of forestry resources and improving the forest cover rate and increasing timber reserves.

Most of the northern part of China is located in an arid and semi-arid climatic zone with major and frequent winds, dryness and little precipitation. Furthermore, over two-thirds of the annual rainfall is concentrated during the summer season (traditionally called the rainy season). Spring afforestation is fairly difficult in some regions with severe spring droughts. The soil contains more moisture during summer afforestation, however, the atmospheric temperature is higher, and wind speeds are lower; this is extremely favorable for seed sprouting and seedling growth. There is a wide variety of trees well-suited to summer afforestation. Most coniferous nursery stock, poplars, willows and other trees can be planted at any time during the period of continuous clouds and rain during the summer. Coniferous trees are small in area, have a waxy layer on their leaves and have a small amount of moisture evaporation themselves. The planting of pines during the rainy season has the special characteristics of a short seedling recovery period, strong drought resistance, high survival rates and conservation of labor and energy. The survival rate of broadleaf trees planted during the summer is fairly ideal merely by cutting off the soft young shoots and pinching off the leaves. The Erdagou Forest in Jinin Province adheres to 16 days of afforestation during the rainy season and the average afforestation survival rate is over 90 percent. Nei Monggol has developed rainy season afforestation throughout the region, covering more than 2 million mu. Summer afforestation in the Ih Ju League accounts for 54 percent of total annual afforestation in the league.

Autumn afforestation is carried out after the nursery stock drop their leaves and stop growing and before the time the ground freezes. This was widely adopted quite early for civilian afforestation in the north. There is a tradition of autumn afforestation among the popular masses of northeastern Nei Monggol. Autumn afforestation can compact the soil and make fuller use of the period when the soil comes into the pulp during the spring than does spring afforestation during the following year, and it provides the seedlings with sufficient returned clear moisture prior to sprouting. Most broadleaf trees can be planted during the fall, and their survival rate is higher than during spring afforestation. The forests of northeastern Nei Monggol have about six to seven months of planting and production time each year. Three-season during the spring, rainy and fall seasons can

rationally arrange for local conditions and tree varieties, rationally utilize the optimum seasons for planting, insertion, injection and other tree planting patterns, and make balanced yearly arrangements for the amount of labor soil preparation, planting and cultivation management to provide greater balance in the amount of specialized work in specialized afforestation teams. This is beneficial for consolidating, perfecting and developing specialized afforestation teams and gradually achieving mechanization and automation of afforestation activities.

IV. Strengthen Scientific Management of Three-Season Afforestation During the Spring, Rainy and Fall Seasons

To change from single-season afforestation during the spring to three-season afforestation during the spring, rainy and fall seasons, we must apply scientific attitudes and strengthen technical management.

1. Do meticulous soil preparation according to the environmental conditions in different seasons for spring, rainy and fall season afforestation. Because the afforestation seasons are different, there should be appropriate forms of soil preparation. This is especially true of rainy season afforestation, which requires consideration of suitable soil and suitable methods to prevent more severe soil erosion. During spring and autumn afforestation, for example, it is appropriate to adopt "clear holes" for soil preparation. Rainy season afforestation should use "hidden holes" for soil preparation. Afforestation in areas where water accumulates can adopt "clear hole" soil preparation. Afforestation in regions with steep slopes can adopt "hidden hole" soil preparation. It is best if afforestation in central mountains with very steep slopes is done with irregular preparation and irregular afforestation to prevent soil erosion. Regardless of which afforestation patterns are used and of the quality of soil preparation during the afforestation season, all should strive to achieve the goals of water retention and soil preservation, to eliminate complex soil qualities, to raise ground temperatures, to accelerate the dissolution of organic matter, to improve the physiochemical properties of the soil, to increase soil fertility and to raise the sapling protection rate.

2. Adhere to the principle of appropriate seasons, soil and trees. The immediate conditions of forested land mean that local climatic conditions are closely related with timber survival, forest expansion and the formation of timber. We must, therefore, be certain that forest blocks and the selection of afforestation seasons are based on the biological characteristics of the nursery stock and afforestation patterns. Generally speaking, a technical measures program should be prepared for the following year's three-season afforestation before soil preparation is done in the preceding year to prevent breakages in the links between blocks of ground, tree varieties and seasons.

3. Practice scientific management of nursery stock according to seasons. Different afforestation seasons have different phenological conditions. The goal should be to guarantee survival through scientific management during

the process of getting nursery stock. Nursery stock supplies should be managed as commodities. Setting prices for nursery stock according to quality and implementing contractual responsibility is an important administrative measure for conserving on nursery stock and for guaranteeing quality of nursery stock for afforestation.

In areas near forest blocks where roads are poor or where there are major rainy season afforestation tasks, an fairly ideal method is local cultivation of "100-day seedlings." This is especially true of the locomotives, workers' dormitories and other things used after winter timber transport has been completed. The survival rate can reach 100 percent for early spring planting of cones to cultivate "100-day seedlings" of coniferous tree varieties. This is a new rainy season afforestation method that is technically advanced and has good economic results. It should be greatly extended.

4. Strengthen management of planting and seedling straightening according to the different planting and afforestation seasons. First, practice timely technical guidance by categories according to different afforestation seasons, afforestation tree varieties and immediate conditions. Second, consolidate integrated systems of contractual responsibility for development of soil preparation, afforestation and seedling straightening. The central links are dovetailed work procedures, clear responsibilities and motivation of the enthusiasm for meticulous planting by diggers and planters.

To summarize, the shift of state-owned forests from single-season afforestation during the spring to balanced three-season afforestation during the spring, rainy and fall seasons can free up even more time for afforestation for reforestation purposes, accelerate progress in afforestation and expand the afforested area. This is beneficial for specialization of afforestation management and thereby improving afforestation quality and expansion of the protected area. This makes three-season afforestation an effective route for accelerating the pace of afforestation and increasing the forest coverage rate. Popularize balanced three-season afforestation during the spring, rainy and fall seasons and conform to the climatic and geographical advantages of afforestation and the biological characteristics of the trees. If we begin with reality as the starting point, adhere to the principles of adaptation to seasons, localities and tree varieties and of integrated activities, and select afforestation patterns according to local conditions, we can increase the forested area and reserves, change the "three declines" to the "three increases" and exploit enormous potential.

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NEI MONGGOL

BRIEFS

LIVESTOCK PRODUCTION REPORTED IMPROVING--Since last winter, the situation in our region's animal husbandry enterprise has improved. According to incomplete statistics obtained on 5 January 1985, the breeding of 8,543,000 small animals had been accomplished. Among these animals, improved breeds accounted for 396,000. The number of animals slaughtered was 6.24 million. Outstanding animals have been maintained at 70 to 80 percent. Beginning last spring, the practice of the "dual responsibility" system that also includes the planting of grass has been carried out in many of our areas where animal husbandry is practiced. The policy has had the effect of stimulating the growth of animal husbandry in our region. As a result, in their work, the framers have emphasized the further development of grassland, keeping fences and sheds in good order and increasing their scientific technology in the keeping of their animals. Last year, 6.1 billion jin of grass was harvested, an increase of 1 billion jin over the previous year. The green grass that was harvested last year was 732,492,000 jin, more than double the previous year's harvest. Before the onset of winter, 279,000 new enclosed sheds had also been built, and 831,000 old ones were also repaired. Thus, because some of the animals had been suitably settled before the winter, subsequent losses diminished by comparison. In addition, because of the comparatively mild temperature last winter, the severity of frost damage also lessened. Therefore the situation of the development in our animal husbandry has decidedly improved when compared with the past. [Text] [Hohhot NEIMENGGU RIBAO in Chinese 18 Feb 85 p 1] 12740

CSO: 4007/265

NINGXIA

GRAIN PURCHASE MEASURE CHANGES OUTLINED

Yinchuan NINGXIA RIBAO in Chinese 1 Mar 85 p 1

[Article by Liu Rugang [0491 1172 1511] director of Ningxia Grain Bureau: "Reform Grain Procurement Methods; Accelerate Development of Commodity Production"]

[Text] Central authorities have decided to replace state monopolized purchase of grain into contract order as of this year. This is the major reform in over 30 years. The reform will have an important impact to adjust rural industrial structures, to adapt to consumption requirements and to elevate social returns.

We have had an erroneous comprehension for a long time that provisions are special commodities requiring centralized procurement, which, in fact, has no positive links with the socialism system and planned economy, nor does socialism have such a character. Put into practice in 1953, the policy established under conditions of a grain shortage played an essential role to assure military supplies and civilian foods and to support socialist construction. It conformed to reality. After the Third Plenary of the 11th CPC Central Committee, grain production grew rapidly due to implementation of the output-related system of contracted responsibilities. As in other parts of the country, the grain harvest in our region has increased year after year, from 2.2 billion jin in 1979 to 3.08 billion jin in 1984, increasing by 800 million jin in 5 years. Grain production exceeded self-sufficiency, the stock was double the normal reserve amount, providing a relative surplus. It is clear that converting from monopolized purchase to contract orders is a timely and current policy decision which is in accord with the actual situation.

According to the instructions issued by the party Central Committee and State Council, our region changed from monopolized grain purchase to contract orders this year. To order paddy rice, wheat and corn, prices will be based on the ratio of an "inverted proportion of 3:7" (the purchase price is calculated according to 30 percent of the state purchase price and 70 percent of the excess purchase price), amounts above purchase orders can be put freely on the market. The state will still openly buy them at the state purchase price if low grain prices were to hurt farmers. Oil materials are wholly open. Grain departments, which order hemp, flower seeds, leaf mustard seeds and sunflower seeds will calculate prices in accordance with the ratio of "inverted proportion of 4:6" (according to 40 percent of the state purchase price and 60 percent of

the excess purchase price) and buy in unlimited quantities. The contract will be signed once a year. Both sides must act on it; any revision should be negotiated and agreed by both parties. Grain sale rewards were abolished along with centralized and arranged purchase. The parity supply of the grain ration for vegetable growers changed into negotiated prices. To mountain areas, the party committee of the autonomous region and people's government decided to extend a 5-year exemption from levy and purchase tasks so as to build up a grain reserve against possible crop failure, to do well in commodity transformation and to develop animal husbandry. However, considering the fact that in recent years some farming households in the mountain area have had rather abundant harvests and have surpluses to sell, the commodities may still be priced according to the ratio of "inverted proportion of 3:7" and ordered by signing a contract. After switching to contract orders, does it mean a "limited purchase"? Does it influence the peasants' initiatives for production? This is not a "limited purchase," but a negotiated purchase. The state purchases a large portion of grain at preferential price; only the remainder is put on the market. If the market price is lower than the state price, the state will extend protection by purchasing at the state price lest a low price hurts farmers; a small amount of the grain then enters the market, applying the law of value to urge peasants to produce in accordance with social demands in an effort to favor the modification of rural industrial structures.

At the time of abolishing state monopolized purchase, it is necessary to do well the work of commodity transformation. Grain per capita is 750 plus jin in our region now, lower than the national average. The surplus is relative due to the low standard. The phenomenon will change if grain transformation succeeds. First, the peasants will shift product categories on the spot by developing fodder-processing industry, animal husbandry and diversified economy, thus accomplishing successive rises in value through processing and producing more meat, poultry, eggs and milk which both the city and township demand. Second, the state may sell a batch of commodities to rural breeding specialized households, state-run breeding farms, forage-processing and food-processing factories to develop animal husbandry and aquatic products industry. Credit sales will apply in places where money is short. We are ready to appropriate 220 million jin in commodities this year to support the development of this above-mentioned enterprises. Third, every grain department must actively carry on the restructuring of the system, make progress in the management of grain-oil foodstuffs, handle well forage production and supply; commodity enterprises at the grass roots level should expand diversified economy in line with local conditions. They may jointly run food processing and stock breeding with specialized households, or may feed pigs, chickens, cattle and sheep in order to positively accomplish the task of commodity transformation.

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NINGXIA

NINGXIA PROMOTING ANIMAL HUSBANDRY

Yinchuan NINGXIA RIBAO in Chinese 2 Mar 85 p 2

[Article by Pan Runqing [3382 3387 3237] director of Ningxia Animal Husbandry Bureau: "Readjust the Rural Enterprise Structure; Energetically Develop the Animal Husbandry Industry"]

[Text] For accelerating economic development in our region and realizing the magnificent goal of quadrupling gross industrial and agricultural output value by the year 2000, the autonomous region party committee recently moved to organize and arrange production in accordance with the "industry, agriculture and trade" principle and to readjust the rural industrial structure.

Agriculture contributes stability, industry accumulates wealth and trade stimulates activity. Agriculture is a foundation and must persist. However, if city-township industry is not prosperous, a flourishing economy will not appear in the countryside. A prominent task at present is to develop industry which can spur on agriculture and trade and rationalize village industrial structures, thus improving rural economic development fully. In recent years we have achieved remarkable success, but the rural industrial structure is not yet sufficiently rational; animal husbandry remains a weak link. In 1984, the total output value of animal husbandry and meat, eggs and milk per capita in our region are below the national average. Therefore, it is essential to stress the promotion of livestock-raising amidst implementing the "industry, agriculture and trade" principle and readjusting agricultural structures.

In order to bring about extensive progress in animal husbandry, the first thing is conscientiously acting in the spirit of Central Committee Document No 1 of this year to reform the centralized and assigned procurements system for livestock products and enliven circulation, to devote major efforts in propagandizing among the masses that assigned purchase for pigs and animal products such as wool, cattlehides and sheepskins, etc. has been changed into free purchase or sale. We should support and encourage peasants to go to the city to sell meat, milk, eggs and fowl. The focus of developing animal husbandry lies in energetically developing different livestock and poultry breeding specialized households, large specialized households, joint specialized households, specialized villages and household pastures, and in leading all households to act through the specialized households. A preferential policy should be applied to livestock-breeding specialized

households, give them favorable treatment in granting state loans, supplying mixed fodders, furnishing necessary materials, and make proper settlement for breeding farms. It is necessary to further improve various forms of animal husbandry in an output-related system of contracted responsibilities, to raise economic returns, and to promote merchandizing and specialization.

To vigorously develop the fodder industry will have an important effect in expediting the growth of animal husbandry. The fodder industry is the material base of modern animal husbandry. Lacking an advanced fodder industry, it is impossible to build up a modern animal husbandry with a high merchandizing rate and economic returns. Efficient measures should be adopted to accelerate animal husbandry development in our region because we had a weak foundation and started late. It is necessary to ferret out the latent power of the mixed fodder factories and try hard to raise their productive quantity and quality so as to practically solve the low-quality and high-price problems of mixed fodder. Simultaneously, pay close attention to new factory construction and fully utilize present fodder materials.

Developing an animal product processing industry is an inevitable trend in the development of the animal husbandry economy. To multiply the value of animal products through rough and fine processes, produce varied high-, mid- or low-grade goods which are easy to store, transport and suit consumer needs can expand the market and enhance peasants income. The more the goods sell well, the more the peasants are enthusiastic to develop animal husbandry. Since the beginning of this year, rabbit mattresses have been in great demand. One after another, peasants raised rabbits due to the attraction of big profit and a "rabbit raising craze" emerged. Several years ago, only a few score dairy cattle were raised in Wuzhong City. More and more farming households started to raise dairy cattle after a milk-processing factory was completed before last year. The number of dairy cattle bred in the city last year reached over 1,200 head. Conversely, a "raising milk goats craze" happened in some cities and counties several years ago, but the fad cooled down rapidly because the milk-processing problem could not be solved. Thus, it is also urgent to promote scientific research, education and popularization of new techniques in animal husbandry so as to remedy the defects of the rather poor scientific and educational foundation and the shortages of technical staff and management personnel. Plan properly and progress intensely. Spread advanced animal production technique and knowledge among all households by technical training and scientific propaganda.

Leadership of the livestock-breeding business should be strengthened in order to quickly implement development policies and measures, to change the view as promptly as possible that animal husbandry is a sideline occupation in some places and to develop it into an important production sector. Draft appropriate plans and make immediate programs for livestock-breeding development, gradually increase the proportion of investment to perfect animal husbandry administrations at each level and further restructure, fortify and reinforce their leading bodies, fully carry out the policy towards intellectuals, care for the work and life of scientists and technicians and reward those who gain outstanding achievements. Thus, the proportion of animal husbandry in our region can be elevated greatly in the agricultural economy.

SICHUAN

ACCELERATED DEVELOPMENT OF LIVEHOG PRODUCTION URGED

Chengdu SICHUAN RIBAO in Chinese 15 Feb 85 p 2

[Article: "Accelerate Livehog Production To Respond to Demand"]

[Text] The pork supply on the market has fallen short since last winter, more than 10 provinces and municipalities seek help from our province. The promotion of foreign trade also demands the export of more pork. Under this new situation, how to meet the needs of the market and speed up the development of livehog production should be given much thought in economic affairs.

In recent years, livehog quantity increased slowly in other parts of the country mainly because the peasants, after the economy was set free, one after another switched from sowing or breeding professions to labor, business, traffic, construction and service, etc., all of which earn income quickly and have high economic returns, whereas pig-raising needs intensive labor and much time but earns income slowly. Next, to increase grain yield in the past depended more on breeding more pigs than on getting more fertilizer, but now chemical and compound fertilizers may be used. Sichuan is a landlocked province, diversified operations are still not popular, and the peasants have longstanding habits in raising pigs. Moreover, peasant purchasing power is not high and to energetically promote pig-breeding may reduce expenses for purchasing commercial fertilizer. Therefore, livehog quantities are rising steadily in our province, which is becoming one of the best-developed in the nation.

Comparing 1984 with 1979, the number of livehogs increased 31.2 percent to 55.92 million head; the number of fattened hogs slaughtered jumped 79.7 percent, to 38.72 million head. Along with the livehog increase at the same time there emerged the phenomena of "hard-to-sell pigs" and no market for piglets, thus impairing the steady growth of livehog production. Since 1983, although the trend of "hard-to-sell pigs" has eased up, a proper growth rate was still not achieved. If fattened livehog growth rate maintains an average of 10 percent per year after 1981, slaughtered fattened hogs would reach 45.78 million head in 1984 instead of the current figure of 38.72 million head.

The domestic market relied on our province's supply more heavily in 1984, 4.14 million head of fattened hogs were shipped out of the province, a

5.9-fold increase over 1978 and 1.8-fold over the previous year. Because of good prices, the outflow of fresh meat, bacon and sausage through different channels was estimated almost equal to 1 million head of livehog, an increase of more than 100 percent over the previous year. Exports also doubled the previous year's totals. These three items constituted 14 percent of livehog that were slaughtered and set a provincial record. In the meantime, sales within the province were also enhanced. Pork consumption of the city and town residents stabilized at an annual level of 56 jin per capita, while quality improved (lean meat). The peasants' pork consumption rose 8 jin, or 33 percent, in 3 years. If the consumption increases another 8 jin reaching 40 jin per capita in the next 3 years, there will be a shortage of more than 4.7 million head of slaughtered fattened hogs according to current rates. If the peasants' consumption catches up with that of city and town residents, i.e., 56 jin, in addition to the quantity consumed by the people living in cities or towns, 57 to 60 million head will be required on the market each year. It is clear that expediting livehog development is required not only by markets outside the province and exports but also by the demands for raising consumption standards within the province.

Accelerating livehog development is an effective measure to transform grain into meat and to augment output value. Generally, to raise a fattened hog requires more than 150 jin of dried fodder which is approximately worth 30 yuan and can be transformed into 100 jin of dressed meat which is worth approximately 115 yuan, almost quadrupling in value. One fattened hog commonly adds 110 yuan to the commercial sector in total purchase value, the sale price is 130 yuan, and tax revenues increase by 6 yuan. If there are over 50 million head of fattened hogs put on the market in the next 3 to 5 years, the value may reach 6 billion yuan, for an increase of 2.2 billion yuan over 1983 and an average increase of 21 yuan per capita. The industrial output value may reach 4.2 billion yuan (for 30 million head) after butchering and increase 1.9 billion yuan from the sum of 2.3 billion yuan in 1983 (for 17.65 million head). Altogether these two items increase 4.1 billion yuan in value, and the average increase is 40 yuan per capita. This will have a positive impact on the aim of "upgrading the people's wealth" in our province. Each additional 10 million fattened hogs will transform 1.5 billion jin of grain to 1 billion jin of pork. Grain shipments have been difficult in recent years; transforming grain into pork will change a weakness to strength.

Pig-breeding by separate households is a form connected with contracted farming households. Generally, a household may raise three to five pigs at the most, while a household with few members can only raise two to three head. The extent of accelerating pig-breeding is limited on the basis of present form; it is necessary to organize pig-raising crackerjacks and to vigorously increase pig-raising specialized households. The goal is mainly to increase medium and small specialized households which can slaughter 30 to 50 head of fattened hogs annually, and also to properly develop large specialized households which may raise over 100 head. The most suitable locations are along convenient transportation routes around large and medium cities where growth can occur and sales thrive. At the same time if we positive promote the fodder industry and breed improved strains, and do a good job in pork export and transportation, prospects for livehog development in Sichuan will be extremely bright.

SICHUAN

BRIEFS

GRAIN PROCUREMENT REFORMS--The provincial party committee and the provincial government recently drew up a specific plan to carry out the decision of the central authorities regarding the change of unified grain purchase to contract ordering in our province and asked that order contracts be accomplished before spring plowing. For the sake of integrating state requirements and peasant production, it is necessary to have a grain order project which, differing from the original state purchase plan, only acts as a basis for negotiating and signing order contracts with peasants. According to regulations, grains ordered by contract are limited to rice (including paddy), wheat and corn. Preferential prices are applied to the items listed in the contract, i.e., the purchase price is calculated in accordance with the ratio of "inverted proportion of three to seven" (30 percent of the state purchase price and 70 percent of the excess purchase price). Grains beyond order contract may be freely put on the market. If the market price is lower than the unified purchase price, the state will openly purchase on the basis of the monopolized purchase price in order to protect the peasants' interests. The provincial party committee and the provincial government ask every locality to strengthen leadership over the work of ordering grain by contract and to let the peasants know clearly the meaning, policy and concrete reform measures and make them move forward. Arrange production in compliance with market demands and change the previous way of selling whatever products are being produced. [Text] [Chengdu SICHUAN RIBAO in Chinese 13 Feb 85 p 1] 12756

CSO: 4007/266

ZHEJIANG

RURAL ECONOMIC STRUCTURE UNDERGOING CHANGE

Hangzhou ZHEJIANG RIBAO in Chinese 22 Feb 85 p 1

[Article: "Zhejiang Rural Economy Reaches Historic Turning Point"]

[Text] On the eve of the Spring Festival, the person in charge of the provincial office of rural policy research told the reporter that the rural economy in our province went through a historical transition last year. The highlights are:

1. Township enterprise output value surpassed that of agriculture for the first year. In 1978, agricultural output value made up 76.9 percent of the gross output value in total countryside output value, whereas township enterprise output value constituted 23.1 percent. Last year, the proportion of agricultural output value dropped to 43.4 percent, township enterprise output value went up to 56.6 percent. The output value of township enterprises in such countries as Shaoxing and Yinxian made up over 80 percent of total output value of village society, occupying a dominant status.
2. People engaged in nonfarming work surpassed those who worked on farming in the rural labor force for the first year. More and more workers in the countryside of our province moved out of cultivation in recent years. Above 50 percent of the rural labor force all over the province engaged in nonfarming work and in township enterprises last year. Among them, the people who worked in township enterprises constituted more than 20 percent of the total labor force. The ratio of farming workers and nonfarming workers in some areas was 4 to 6, 3 to 7, 2 to 8, or even 1 to 9, respectively, thus ending the period when 80 percent of the labor force in the countryside toiled to eke out a scant livelihood.
3. The proportion of marketable agricultural goods produced by peasants has increased greatly. In 1978, over one-half of agricultural products were consumed by producers themselves, with the commodity rate being less than 50 percent. Last year, the commodity rate in the province rose to more than 60 percent, of which state procurement alone was over 4.6 billion yuan an increase of more than 100 percent over that in 1978.

The person in charge also pointed out that following reform of the unified and assigned procurement system for farm products the agricultural structures in the rural area of our province will make considerable adjustments this year on

the basis of market requirement. Thus there will be more manpower transferring to secondary and tertiary industries. The commodity rate of farming products will be raised further and overall rural economic development will have better momentum.

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